Rowan University

Rowan Digital Works

Theses and Dissertations

6-30-2005

Catastrophic crisis communication: a study of hospital crisis planning following the September 11, 2001 terrorist attacks

Daniel Matthew Lockwood Rowan University

Follow this and additional works at: https://rdw.rowan.edu/etd



Part of the Public Relations and Advertising Commons

Recommended Citation

Lockwood, Daniel Matthew, "Catastrophic crisis communication: a study of hospital crisis planning following the September 11, 2001 terrorist attacks" (2005). Theses and Dissertations. 1031. https://rdw.rowan.edu/etd/1031

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact graduateresearch@rowan.edu.



CATASTROPHIC CRISIS COMMUNICATION: A STUDY OF HOSPITAL CRISIS PLANNING FOLLOWING THE SEPTEMBER 11, 2001 TERRORIST ATTACKS

by
Daniel Matthew Lockwood

A Thesis

Submitted in partial fulfillment of the requirements of the Master of Arts Degree of
The Graduate School at
Rowan University
June 1. 2005

Approved

Date Approved $\frac{6/30/05}{}$

© 2005 Daniel M. Lockwood

ABSTRACT

Daniel M. Lockwood
CATASTROPHIC CRISIS COMMUNICATION: A STUDY OF HOSPITAL CRISIS
PLANNING FOLLOWING THE SEPTEMBER 11, 2001 TERRORIST ATTACKS
2004/05

Advisor: Dr. Joseph Basso Public Relations Graduate Program

The purpose of this study was to determine whether hospitals in southern New Jersey and throughout the United States were prepared to respond to catastrophic crisis situations and find out if hospitals have changed or improved crisis plans since the September 11, 2001 terrorist attacks.

To examine preparedness and improvement of crisis plans since September 11, 2001, the researcher employed qualitative and quantitative studies. The researcher conducted in-depth personal interviews with public relations specialists from four southern New Jersey hospitals and sent email surveys to 40 hospitals throughout the United States to find out if these facilities felt prepared to respond to catastrophic crises and see if their crisis plans have been changed or improved since September 11, 2001.

Findings of the study indicate that hospitals in southern New Jersey and throughout the United States do feel prepared to respond to catastrophic crisis. In addition, many hospitals update crisis plans on a regular basis.

Acknowledgements

I'll start by thanking my professors this year: Dr. Bagin, Prof. Fulginiti, Prof. Litwin, Dr. Sparks and all others who helped to shape my education. I will be forever grateful for your intelligence and support.

Dr. Basso, the man, the advisor. Thank you for everything this year; including your comment on the first night of Techniques (think hard and you'll remember). You were a mentor for me this year and a terrific teacher. I am a better writer because of you and will always be grateful for your support.

I also want to thank my siblings, Mark and Samantha, for their continued support and for asking their big brother about his thesis, even though they had no idea what it was. I love you guys.

I'd like to thank my mother, Linda, for her support of my education and overall well-being since the beginning. You always pestered me about finishing my homework when I was young. Although I didn't appreciate it then, I know I wouldn't have finished this project without those memories. I love and appreciate you more than you'll ever know.

My father, well what can I say? Dad, you are truly the inspiration for my education. I look to you and all your success, in your career and in life, and hope that I can give my family just half of what you gave to me. Thank you for pushing me and encouraging my schooling. Although somewhat cheesy, I can truly say that I wouldn't be the man that I am today without you. I love you.

And last but not least, I must thank Stacy. I met you just one year ago and you truly changed my life forever. Your support over the past year has been incredible. You never let me slack off or give up on anything. I don't think I'll be able to express my full gratitude to you now, but I've got plenty of time to try. You make me a better person and I love you more than anything in the world.

Table of Contents

Chapter 1: Introduction	1
Chapter 2: Literature Review	11
Chapter 3: Research Design.	34
Chapter 4: Research Results.	37
Chapter 5: Discussion	49
References	53

Chapter 1

Introduction

In September 2001, the United States suffered the largest scale terrorist attack ever in the nation's history. Terrorists hijacked commercial airliners and assaulted two of the largest buildings in the world, New York's twin towers. Thousands of innocent civilians lost their lives and the United States was left in a state of complete shock.

Overnight, the land of opportunity quickly became the land of fear and turmoil. Individuals were left in fear, believing that more attacks were imminent. America finally witnessed something that had not happened in the lives of almost all individuals: a full-scale national crisis.

Fall-out from this attack resulted in great doubt cast over the medical community as to whether hospitals are prepared to deal with a catastrophic crisis. Crisis management is the key focus of importance. However, this study seeks to examine crisis on a macro/large scale level as opposed to a micro or small-scale crisis. Major catastrophes, although not occurring on an everyday basis, remain pertinent issues on the minds of all crisis communication practitioners. Knowing how to plan for a major disaster (i.e. flood, earthquake, terrorist attack) could mean the difference between saving lives and losing lives, and organizational survival or destruction.

Robert F. Littlejohn defines crisis management first and foremost as what it cannot be: mismanagement. He writes, "Often as a result of inappropriate planning or the absence of any kind of planning at all, organizations engage in consistent crisis-type

situational reactions." Littlejohn believes that "without ordered priorities an organization never knows which situations call for immediate attention and which do not." He adds, "as a result they are not able to continue functioning in the face of any true crisis situation." Similarly, Hickman and Crandall agree with the above mentioned statements and add that there are "three critical functions in planning for and managing a disaster: (1) form the crisis management team, (2) develop worst case scenarios, and (3) create a crisis management plan." Developing proper crisis plans and knowing what not to do when a catastrophic situation arises are key factors in the ongoing success of any business or organization.

Since these catastrophic events of September 11, 2001, hospitals throughout the United States were forced to become alert to the severe threat of a catastrophic crisis. An article found in the journal *Health Publishing News* states that "it's painfully obvious that healthcare facilities are indeed a target for terrorists with weapons of mass destruction." ⁴ Hospitals may be called upon to "harbor and treat masses of infected individuals." ⁵ The preparedness for catastrophic crisis requires a reaction by the worldwide medical community as a whole, but the problem is then "left up to the individual facility as to the details of those preparations." ⁶

Similarly, Peter MacPherson of *Hospitals and Health Networks* charges that healthcare facilities need to be better prepared to respond to mass crisis, but in many cases are not prepared. The healthcare industry responded quite rapidly and effectively to

¹ Robert F. Littlejohn, et al, Crisis Management: A Team Approach (New York: AMA, 1983) 10

² Robert F. Littlejohn, 10

³ Jennifer R. Hickman and William Crandall, "Before Disaster Hits: A Multifaceted Approach to Crisis Management," <u>Business Horizons</u> Vol. 40, Issue 2, March-April 1997: 76

⁴ "Are you prepared for bioterrorism?," <u>Healthcare Purchasing News</u> Vol. 28, Issue 10, October 2004: 26

⁵ "Are you prepared for bioterrorism?," 26

⁶ "Are you prepared for bioterrorism?," 26

past disasters such as "the 1994 Northridge earthquake in Southern California, and the Southeast coast's regular barrage of hurricanes." MacPherson believes that quick and efficient disaster mobilizations may be instilling federal disaster preparedness officials with a false sense of security. With the number of operating hospitals in the United States on a decade long down trend, healthcare planners are increasingly worried about the number of hospital emergency and trauma departments available in the event of a catastrophic crisis.

This in mind, disaster preparedness becomes a vital facet of America's changing landscape and a major catastrophic crisis becomes a question of *when* and not *if*. Crisis communication researchers Teresa Hudson, Richard Haugh, Bill Santamour, Michele Chabin and Maureen Glabman believe that "hospitals, in conjunction with government and public safety leaders, must do everything reasonable to prepare for the worst.

Readiness and confidence that derives from it will be the most effective weapon to protect ourselves and way of life from brutality." ⁸ Being unable to prevent, learning how to deal with catastrophic crisis is of the utmost importance.

Problem

Catastrophic crisis remains an issue in many facets of organized business such as government offices, schools, and also hospitals. This thesis seeks to understand whether or not hospitals in the southern New Jersey area are prepared to deal with catastrophic crisis situations in wake of the September 11, 2001 terrorist attacks. Since that chaotic

⁷ Peter MacPherson, "Are Hospitals Ready To Respond?" <u>Hospitals and Health Networks</u> Vol. 70, Issue 1, January 5, 1996; 39

⁸ Teresa Hudson; Richard Haugh; Bill Santamour; Michele Chabin; Maureen Glabman, "Are You Ready?" Hospitals and Health Networks Vol. 75, Issue 11, November 2001: 38

day, many hospitals throughout the country quickly sought to change existing crisis plans. However, the first step in changing these plans requires an examination of the definition of crisis itself.

The American Heritage Dictionary defines crisis as "a crucial point or situation in the course of anything; a turning point." ⁹ When a crisis occurs, a company must realize the great change that occurs in the structure of everyday business or activity. Crises can occur on both large and small-scale levels. To fully understand the meaning of the word crisis in this thesis, the reader must look at the word crisis itself and also ways in which crisis can be managed.

According to University of Washington professor Kathleen Fearn Banks, crisis is a five-stage process: detection, prevention/preparation, containment, recovery, and learning. "Crisis management provides an organization with a systematic, orderly response to crisis situations." ¹⁰ An organization's timely response to an emergency dictates its ability to continue serving the public.

Delimitations

The terms *crisis* and *catastrophic crisis* certainly hold different meanings. The overarching question first presented by this researcher was, "Are public relations specialists working in the medical industry prepared to deal with crisis." This question provides a general outlook on the study being undertaken. Crisis can be described as a myriad of different situations. A sexual harassment lawsuit brought against a company manager provides a crisis; several employees involved in a physical altercation in the

M. Larry Litwin, <u>The Public Relations Practitioner's Playbook</u> (Iowa: Kendall Hunt, 2003) 165
 Kathleen Fearn Banks, <u>Crisis Communications: A Casebook Approach</u> (Mahwah: Lawrence Erlbaum, 1996) 4

workplace become a major problem. The above statements, although important issues and certainly crisis situations, cannot be deemed as a catastrophic or *large scale* crises.

The main focus of this study will be to look at catastrophic crisis. The research will not focus on any instance of internal crisis in an organization, such as employee "complaints about work hours, work conditions, or unreasonable supervisors." ¹¹ Instead, issues of natural disaster, emergency illness, and terrorism are at the center of this research thesis. Therefore, the researcher narrowed the research question to: *Are southern New Jersey hospitals prepared to deal with catastrophic crisis situations in wake of the changing landscape of the country following the September 11, 2001 terrorist attacks?*

Purpose

The purpose of this study is to find out whether southern New Jersey hospitals are prepared to respond to a catastrophic crisis situation following the September 11, 2001 terrorist attacks. Furthermore, the study will compare catastrophic crisis plans of four New Jersey Hospitals to one another, and also compare them to the plans of nationwide hospitals.

Following the completion of the study, an improved catastrophic crisis plan should be created, separate from each hospitals existing crisis plan. The research being conducted in this study should find that although all hospitals have some form of crisis plan, most need improvement. Secondary research tools used in this study show glaring

5

¹¹ Kathleen Fearn Banks, 5

indications that many hospitals are not properly prepared for a large-scale crisis. This directly proves the validity of the thesis.

Two hypotheses form the basis of this thesis:

H1: Hospitals in southern New Jersey, along with hospitals throughout the country, are not properly prepared to respond to catastrophic crisis situations. In studying many articles and scholarly journals related to the topic, the research indicates that many hospitals would not be adequately prepared to deal with catastrophic crisis. In August of 2004, an article published in the New York Times stated that hospitals throughout the New York metropolitan area seem under prepared to handle a catastrophe. Three years after the 9/11 attacks, healthcare officials in New York City say these hospitals "still lack much of the important protective clothing, decontamination facilities, and essential drug supplies that could be needed to respond to a biological, chemical or nuclear strike." ¹² Hospitals across the United States appear worried that if a catastrophic crisis were to occur, their facility would lack the essential tools needed to respond quickly and efficiently.

H2: Many hospitals have not changed or improved crisis plans to fully prepare for terrorist attacks following September 11, 2001. Much of the literature found for this study shows that hospitals have not made drastic changes to existing crisis plans even after the nation faced the largest crisis in its history. Articles found in many journals and newspapers in the United States following the 9/11 attacks show that hospitals "have not conducted drills and lack needed equipment" for aiding those who are injured or sick. ¹³

¹² Marc Santora "Health Experts Say Preparedness for Catastrophe Is Lacking," <u>The New York Times</u> 24 Aug. 2004: B1

¹³ "Hospitals unprepared for bioterrorism: Report," <u>Physicians Financial News</u> Vol. 21, Issue 11, September 2003: 38

This shows a definite lack in planning on the part of many healthcare organizations. Even with bioterrorism a key factor in hospital catastrophe preparation, "70 percent of hospital emergency department managers polled at a recent conference revealed that their hospitals are not prepared to deal with bioterrorist-related medical emergencies." ¹⁴ In order for any hospital to prepare for a catastrophic crisis, it must develop a plan suitable for dealing with a large-scale crisis situation.

Procedure

To study and find relevant research information to test the hypotheses of this thesis, the researcher first examined books, scholarly journals, and newspapers.

Gathering this information involved visiting Rowan University's library and searching its database of sources. The researcher located many forms of secondary research in order to build Chapter two of this thesis. Constructing chapter three involved conducting indepth interviews with public relations professionals at four southern New Jersey Hospitals and sending surveys regarding catastrophic crisis preparation to hospitals throughout the United States. Upon retention if these surveys, the researcher was able to analyze the results and make a conclusion about the validity of the study's hypotheses.

In reviewing recent sources regarding catastrophic crisis preparation in hospitals, the researcher noticed a trend. Many of the published articles stated that hospitals were not prepared to handle a large incursion of patients due to a major accident or terrorist event. In fact, an article published in *Modern Healthcare* magazine in April of 2003 posed a question to United States healthcare organizations: "If our nation's ERs and

¹⁴ "Most hospital ERs not prepared for bioterrorism; patient violence biggest threat to ER staff," <u>Health Care Strategic Management</u> Vol. 21, Issue 1, January 2003: 7

trauma centers are struggling to handle their daily load of 911 calls, how can we expect them to manage a huge influx of casualties from a terrorist attack." ¹⁵ Another article, written in the journal *Healthcare Purchasing News* stated that "most of the nation's urban hospitals have participated in bioterrorism planning and coordination activities, but lack the medical equipment needed to handle the likely surge in patients during a bioterrorist incident." ¹⁶ Through secondary research, it becomes apparent that a large majority of hospitals in the United States lack proper catastrophic crisis communication plans.

The final three chapter's of this study focused on in-depth interviews with public relations professionals from southern New Jersey hospitals and surveys sent to hospitals across the United States. Tabulation of these study results will be presented in charts, graphs, and percentages, and the researcher's response to the results will be analyzed.

Terminology¹⁷

<u>Crisis</u> – (n.) A crucial or decisive point or situation; a turning point; an unstable condition, as in political, social, or economic affairs, involving and impending abrupt of decisive change.

<u>Disaster</u> – (n.) an occurrence causing widespread destruction and distress; a catastrophe; a grave misfortune

¹⁵ Arthur Kellerman, "A hole in the homeland defense" <u>Modern Healthcare</u> Vol. 33, Issue 16, April 2003:

¹⁶ "GAO: Many hospitals unready for bioterrorism" <u>Healthcare Purchasing News</u> Vol. 27, Issue 9, September 2003: 10

¹⁷ Merriam - Webster Online Dictionary. Retrieved October 15, 2004 from www.m-w.com

<u>Communication</u> – (n.) The act of communicating; transmission; the exchange of thoughts, messages, or information, as by speech, signals, writing, or behavior; Interpersonal rapport.

communications (used with a sing. or pl. verb) The art and technique of using words effectively to impart information or ideas; The field of study concerned with the transmission of information by various means, such as print or broadcasting; Any of various professions involved with the transmission of information, such as advertising, broadcasting, or journalism.

<u>Plan</u> – (n) A scheme, program, or method worked out beforehand for the accomplishment of an objective: *a plan of attack;* A proposed or tentative project or course of action: *had no plans for the evening;* A systematic arrangement of elements or important parts; a configuration or outline: *a seating plan; the plan of a story;* A drawing or diagram made to scale showing the structure or arrangement of something; In perspective rendering, one of several imaginary planes perpendicular to the line of vision between the viewer and the object being depicted; A program or policy stipulating a service or benefit: *a pension plan*.

<u>Terrorist</u> – (n.) a radical who employs terror as a political weapon; usually organizes with other terrorists in small cells; often uses religion as a cover for terrorist activities

<u>Catastrophe</u> – (n.) A great, often sudden calamity; A complete failure; a fiasco: *The food* was cold, the guests quarreled—the whole dinner was a catastrophe; The concluding action of a drama, especially a classical tragedy, following the climax and containing a resolution of the plot; A sudden violent change in the earth's surface; a cataclysm

<u>Interview</u> – (n.) a formal consultation usually to evaluate qualifications (as of a prospective student or employee) a meeting at which information is obtained (as by a reporter, television commentator, or pollster) from a person; a report or reproduction of information so obtained

 \underline{Survey} – (n.) a broad treatment of a subject

(v.) to examine as to condition, situation, or value; to appraise; to query (someone) in order to collect data for the analysis of some aspect of a group or area to determine and delineate the form, extent, and position of (as a tract of land) by taking linear and angular measurements and by applying the principles of geometry and trigonometry to view or consider comprehensively

Chapter 2

Literature Review

Crisis Communication Defined

According to crisis communication researcher William E. Arnold, the definition of crisis remains divided into several sections each of which applies to different stages of the crisis process. After the stages come together, crisis can then be defined as "a hazard or threat that affects the problem solving ability of the individual to resolve the issue in a normal manner." A subset of this definition also lists crisis as "a necessary turning point, a crucial moment, when development must move one way or another, marshalling resources of growth and recovery and further differentiation." Crisis communication can then be described as the most effective way to respond to any crisis in question.

Crisis Communication in Hospitals

The events of September 11, 2001 brought about a needed change in crisis communication and management throughout a vast majority of hospitals in the United States. Possible anthrax attacks, as well as the threat of other chemical or biological weapons being used to harm innocent civilians caused these health agencies to raise their

¹⁸ William E. Arnold, <u>Crisis Communication</u> (Iowa: Gorsuch Scarisbrick, 1980) 3

¹⁹ William E. Arnold 3

level of communication preparedness for the influx of these new crisis scenarios.²⁰ The modern hospital remains one of the most important organizations in need of a well-suited plan for catastrophe and/or chaos. Lack of any kind of preparation could lead to disastrous disease epidemics or improper care of patients harmed by deadly biological pathogens.

According to healthcare public relations expert Robin Cohn, keeping the public informed and maintaining steady communication becomes the key step in any type of hospital crisis.²¹ In fact, "an unprepared, mismanaged response to a crisis has a direct impact on such efforts as physician/staff recruitment, fund raising and financing."²² Therefore, hospitals must be able to handle problems quickly and efficiently and also anticipate dilemmas that may arise.

Cohn outlines a specific strategy for keeping the hospital in control and competent. First, key management figures must anticipate all the *What If's* of crisis. By preparing for many terrible situations, (i.e. an aide accused of murdering patients, a bomb explosion in a certain area of the facility, even the hospital's inability to meet its payroll) the hospital puts itself in a position to respond systematically to any disaster.²³

Second, a specific crisis plan must be tailored so that it includes "ingredients such as hospital policy, operational procedures, external and internal communications, risk management and victims/family needs." Used effectively, each section becomes essential to the success of the plan when and if used.

²⁰ Vincent T. Covello, "Best Practices in Public Health and Crisis Communication," <u>Journal of Health</u> Communication, Vol. 8, Issue 4, Jul 2003: 5

²¹ Robin Cohn, "Pre-crisis management: protecting the hospital's image," <u>Trustee</u>, Vol. 46, Issue 7, Jul 1993: 18

²² Robin Cohn, 18

²³ Robin Cohn, 18

²⁴ Robin Cohn, 18

Finally, and for many purposes, most importantly, hospitals must possess credibility and give the public a sense of trust. Even before a crisis occurs, hospital officials should keep in touch with people living in the area. A large amount of "public support is developed through establishing a bond with the medical community and the public through internal and external programs that demonstrate responsibility and accountability." Now, in the event of a problem, the public won't frown upon the hospital, but instead wait intently to see how the dilemma can be fixed.

Cohn shares his view on crisis communication in hospitals with a vast majority of public relations professionals. Cohn's view is to anticipate problems, develop a plan and use it if needed, and keep in good standing with the public and media. Cohn believes that following these guidelines will help any hospital overcome a major crisis situation.

Public Relation's Role in Crisis Management

Before fully delving into the topic of hospital crisis communication, it remains important to first present an outline of the role of public relations in crisis communication.

Need For a Plan

Every major business or organization requires a sufficient crisis plan. From small family-owned enterprises to large corporate establishments, the need for proper training and response in the face of disaster remains constant. According to public relations practitioner Francis Marra, "good strategy will, in most cases, lead to successful crisis

²⁵ Robin Cohn, 18

management."²⁶ But, it becomes the need for this proper strategy that drives crisis communication professionals to develop the best possible contingency plans.

University of Washington professor Kathleen Fearn Banks believes that the need for a crisis plan stems from these five stages of crisis: detection, prevention, containment, recovery and learning.

The detection phase begins with "noting the warning signs... [and] also refers to a system within the organization in which key personnel are immediately notified of a crisis."²⁷ The prevention stage is marked with "continuous, ongoing public relations programs and regular two-way communications [which] build relationships with key publics and thereby prevent...or limit the duration of crisis."²⁸ Following this, the third stage of crisis containment refers to the "effort to limit the duration of the crisis or keep it from affecting other areas affecting the organization."²⁹ During the final two stages of crisis, recovery and learning, "efforts to return the company to business as usual" are made, and a process "of examining the crisis and what was lost, what was gained, and how the organization performed" goes into effect.³⁰

Similarly, communication researchers Steven Ash and Douglass Ross share in Banks' analysis, and add that another important factor remains in sufficiently examining the nature and need for crisis planning. Ash and Ross believe that "before managers [can] accurately perform crisis management, they must understand something about the

²⁶ Francis Marra, "Crisis Communication Plans: Poor Predictors of Excellent Crisis Public Relations," Public Relations Review, Vol. 24, 1998: 472

²⁷ Kathleen Fearn Banks, <u>Crisis Communications: A Casebook Approach</u>, (Mahwah, New Jersey: Erlbaum, 1996) 4

²⁸ Kathleen Fearn Banks, 5

²⁹ Kathleen Fearn Banks, 7

³⁰ Kathleen Fearn Banks, 8-9

nature of perceived causes."³¹ Ash and Ross believe that crisis management, when examined through the science of epidemiology, will help researchers understand what specific events led to the initial crisis and how to halt any reoccurrence. Epidemiology seeks to find cause by quantifying the occurrence of illness or disease. In the field of public relations, epidemiology can be used to study the multiple causal components of a crisis and see how these components came about. Ash and Ross realize that their concepts, although not new, can be transferred from biological science to organizational management application.³²

After breaking the crisis down into these finite stages, a researcher can easily see the importance and need for planning. Murphy's Law states that *if something can go wrong, it will.* But, if crisis communication practitioners remember the need for planning, they can better react to any situation.

Development of a Plan

After establishing the need for a crisis plan, the next step in the process deals with actually developing the plan itself. An article published in *Business Horizons* details ways in which a company should develop a proper crisis plan. According to authors Jennifer Hickman and William Crandall, the plan should "contain clear check-off procedures and provide details giving the specifics of the operation." Each employee working within the organization should possess a copy of the procedures and

³¹ Steven Ash and Douglass Ross, "Crisis management through the lens of epidemiology," <u>Business Horizons</u>, Vol. 47, Issue 3, 2004: 49

³² Steven Ash and Douglass Ross, 50

³³ Jennifer Hickman and William Crandall, "Before Disaster Hits: A Multifaceted Approach to Crisis Management," <u>Business Horizons</u>, Vol. 40, Issue 2, 1997: 76

management should ensure that employees stay current with any new provisions.

Hickman and Crandall believe that a company should test its plan on a yearly basis.³⁴

In addition, public relations practitioner John M. Penrose believes that developing a plan for dealing with crisis in any organization remains vital to the success of that business. He also believes that a key aspect of an industry's crisis management plan should also be its crisis management team. In fact, many "researchers agree that organizations with a team oriented approach to crisis preparation will be better able to successfully manage than those organizations that entrust a single individual such as a chief executive officer." Teams are mostly composed of between six and ten senior company executives who may include the CEO, public relations or communications executive, or health and safety advisor. This team will then be drilled by use of crisis simulations in order to develop the skills needed to handle potential catastrophes and brainstorm possible solutions. ³⁶

In addition to the use of the crisis team, communication expert Dr. Thomas J.

Roach believes that two more important procedures should be included in the development of the crisis communication/management plan. He feels that an emergency phone list should be created for key company personnel in the event of a major catastrophe. Without this list, many individuals will lack important information because they cannot be reached swiftly. Also, he believes that in the event of a crisis, a

31

³⁴ Jennifer Hickman and William Crandall, 76

³⁵ John M. Penrose, "The role of perception in crisis planning," <u>Public Relations Review</u>, Vol. 26, Issue 2, Summer 2000: 155

³⁶ John M. Penrose, 156

³⁷ Thomas J. Roach, "Planning for a Crisis," Rock Products, Vol. 107, Issue 4, 2004: 12

meeting should be held approximately one week after to "evaluate the official reaction and update the plan."³⁸

Although no one can be sure of when and if a crisis will occur, each author suggests that it remains of the utmost importance for all businesses and organizations to possess a fully functional crisis communication plan. In the event of a crisis situation, a detailed plan of action becomes the fine line between order and chaos.

Implementation of the Plan

After establishing the need for a crisis plan and a proper strategy for crisis management in the event of a catastrophic situation, the next logical step in the sequence becomes the implementation of that plan. Many organizations conduct drills to test the ability of their organization's plan. But, the only way to truly know whether or not a specific design will work relies on the use of the plan in an actual crisis.

Vincent T. Covello, Ph.D., director of the Center for Risk Communication in New York City has outlined a list of best practices to follow during times of actual crisis. Covello, having experienced the September 11, 2001 terrorist attacks firsthand, knows of the importance of appropriate crisis planning.

Covello believes that in times of chaos, company stakeholders should be accepted and informed of events through a broad range of communication channels. The company should strive for outcomes that will be beneficial for all involved.³⁹ Also, it remains equally important for the company to be "truthful, honest, frank and open," If a spokesperson(s) feels unsure about a specific answer, he/she should agree to get back to

³⁸ Thomas J. Roach, 12 ³⁹ Vincent T. Covello, 5

⁴⁰ Vincent T. Covello, 6

the questioner at an agreed upon deadline. ⁴¹ A final aspect of his list of tactics involves communicating clearly and with compassion. Covello believes that it is essential to "respect the unique communication needs of special and diverse audiences."⁴² In doing so, audiences will be kept fully aware of the crisis and the most up to date information about how and when it will be resolved will be conveyed.

Additionally, Rowan University communication professor M. Larry Litwin, APR, believes that crisis communication during times of chaos can be broken down into eight different response variables: "direct, distance, deflect, distract, diffuse, defuse, dilute, [and] dissolve." Each of these separate approaches requires use during varying forms of crisis. For example, using the distance approach would require the crisis spokespersons to separate themselves from the cause of the frenzy. Litwin uses Al Gore's separation from Bill Clinton during the 2000 presidential election race as a specific illustration.

Above all else, keeping the public informed seems the most important aspect for properly implementing a crisis management plan. Correct implementation of a plan may be the difference between a company's success and failure.

Revision of the Plan

The final phase in establishing an organization's crisis communication plan is revision. Many businesses suffer some sort of internal or external dilemma each year. However, some corporations go on for years without ever experiencing a major

⁴¹ Vincent T. Covello, 6 ⁴² Vincent T. Covello, 6

⁴³ M. Larry Litwin, The Public Relations Practitioner's Playbook, (Iowa: Kendall/Hunt, 2003) 174

catastrophe or even a small-scale crisis. Nevertheless, it remains important that every organization knows when and how to revise a crisis communications plan if needed.

Andrea Hecht of Hecht Communications in Sherman Oaks, Calif. believes that all crisis communication plans need revision, even if they have never been used. Her proposal displays simplicity and requires organizations to follow a list of simple steps: identify emergency communication team members, create an early warning system to alert team members to a pending crisis, review all existing crisis communication policies as well as previous media coverage, identify spokespersons, and create a series of two-way communication networks between employees.⁴⁴ Using Hecht's guidelines, companies with or without prior history of crisis could benefit greatly.

San Diego State University business professor John M. Penrose also believes that revision of crisis communication plans remains an essential factor in the success of any business. He states that the "end of every crisis is the beginning of the preparation step for the next one." Penrose feels that during the evaluation of a crisis, an organization should accomplish three goals: assess team performance to indicate and possibly fix any mistakes, let crisis team members express any feelings of stress or anguish brought about by the situation, and carefully study and revise the plan itself.⁴⁶

Conversely, crisis communication expert Robert Heath approaches revising the crisis plan from a varying angle. He believes that a crisis situation can be separated into four components- "environment, crisis incident, pre-impact management, and post-

⁴⁴ "Take control of your image during hospital disasters, media scrutiny," <u>Healthcare PR & Marketing News</u>, Vol. 7, Issue 22, 1998: 1

⁴⁵ John M. Penrose, 157

⁴⁶ John M. Penrose, 157

impact management."⁴⁷ By differentiating between each crisis stage, outside evaluators will be more likely to identify the causes of the crisis and therefore be able to make recommendations for future improvements.⁴⁸

Each of these authors agrees that revision of the crisis communication plan becomes the last line of defense for an organization and the one true indicator of an industry's preparedness for disaster.

Catastrophic Crises in Hospitals

Throughout chapter one of this thesis, the author discussed some possible scenarios regarding the state of crisis communication in southern New Jersey as well as on a national level. The main area of emphasis for this study is establishing whether or not hospitals throughout the country feel prepared to deal with a catastrophic crisis, especially now, more than three years after the largest national crisis in United States history.

A review of the literature indicates that few hospitals have made drastic changes with respect to their crisis communication plans. The literature reviewed in these next sections examines articles that focus on the September 11, 2001 terrorist attacks as a change for crisis planning, new anticipated threats to hospitals and their ability to respond, and how hospital crisis plans should be restructured now and in years to come.

⁴⁷ Robert Heath, "Looking for answers: suggestions for improving how we evaluate crisis management," <u>Safety Science</u>, Vol. 30, Issue 1-2, 1998: 163

⁴⁸ Robert Heath, 163

How September 11, 2001 changed the course of crisis planning

Prior to September 11, 2001, an overwhelming majority of hospitals throughout the United States had crisis plans for use in the event of an emergency. Some of these facilities, especially those in urban areas, faced a myriad of crisis situations on an almost daily basis. It became the responsibility of these medical centers to prepare for the worst possible scenario, just in case. For the most part, disaster management planning worked. But, changes were necessary following the events of September 11, 2001.

Teresa Hudson Thrall, Richard Haugh and Bill Santamour, all writers for the journal *Hospitals and Health Networks*, detailed some of the lessons learned from the terrorist attacks and listed some needed changes for future crisis planning.

Topping their list of lessons learned through the event: communication during crisis needs improvement.⁴⁹ In New York City, telephone and cell phone communications became severely overloaded causing difficult problems as hospital attempted to deliver supplies and other types of emergency treatment needs.⁵⁰ When the most vital asset to an individual during a time of crisis becomes extremely difficult, results could be no less than disastrous. Therefore, better communication serves as a key aspect of crisis improvement during future catastrophic events.

Similarly, an article released in the *New York Times* during late August of 2003 detailed some more lessons learned during the 9/11 crisis that helped hospitals better respond to the blackout that affected Manhattan early in the month. One important lesson discussed was that many medical facilities find themselves over run with staff, which may be more of a hindrance than help. Many "doctors and other workers not on duty

⁴⁹ Terese Hudson, Bill Haugh and Richard Santmour, "Are you ready?," <u>Hospitals and Health Networks</u>, Vol. 75, Issue 11, 2001: 40

⁵⁰ Terese Hudson, Bill Haugh and Richard Santmour, 40

reflexively head toward a hospital or stay after their shifts."⁵¹ In the case of a large-scale crisis, it may be more beneficial that less medical staff be on hand so that patients may be cared for with less risk of confusion and possible mishap.

After further review of the literature, the researcher found a final article that detailed the primary focus for hospitals in the effort to change crisis planning after the September 11, 2001 terrorist attacks. The article, published in the *Journal of Healthcare Medicine*, stated that priority focus should rest on bioterrorism preparedness in hospitals. The author believes that preparing for such an incident should be a community effort, involving first responder organizations such as "local law enforcement, fire department, state and local governments, other hospitals, HAZMAT (hazardous material) teams, emergency medical services, and area public health departments." Also equally important in the effort to improve preparation requires that hospitals receive more education about the threat of chemical or biological weapons, install new types of disease surveillance equipment, and stockpile new medications to treat victims of an attack. 53

According to the literature, the most important change needed in crisis preparation following the events of September 11, 2001 is flow of communication. If hospitals learn to better communicate with the public, the media, and the staff of their facilities during a crisis, then the incident will be handled in a more efficient manner.

51

⁵³ Jennifer Murphy, 230-232

⁵¹ Clifford J. Levi and Katherine Zernike, "Lessons learned on 9/11 help hospital respond," New York Times, 16 August 2003: B12

⁵² Jennifer Murphy, "After 9/11: Priority Focus Areas for Bioterrorism Preparedness in Hospitals," <u>Journal</u> of <u>Healthcare Management</u>, Vol. 49, Issue 4, 2004: 229

Are hospitals prepared for anticipated threats of catastrophic crisis?

The literature reviewed in this study indicates that the overwhelming majority of emergency medical centers feel ill prepared to handle the threat of a chemical or biological attack.

An article published in the *New York Times* in August of 2004 stated that catastrophe preparedness remains absent from most facilities. The article focuses on the work of Dr. Irwin Redliner, director of the National Center for Disaster Preparedness at the Mailman School of Public Health at Columbia University. Redliner believes that "this country is not ready to handle a significant terrorist event." His belief stems from the fact that during a Chicago area hospital counterterrorism drill, which featured biological agents and dirty bombs, many problems arose in the communication of crisis officials, care of patients, and severe shortage of medical supplies. The drill took place in early 2003. More than one year later little has been done to correct any of the problems.

Emergency preparedness also worries San Francisco area hospitals. In a region of the country with a history of natural disasters and quick emergency response, healthcare officials still don't believe that they could "handle a severe flu epidemic, let alone a terrorist attack causing mass casualties." Hospitals in the region would like to train more people and purchase needed supplies to combat a severe catastrophe. However, they say that they lack the government funding needed to conduct this training. Despite an increase in planning and preparation for a worst-case scenario crisis, San Francisco

⁵⁴ Marc Santora, "Health Experts Say Preparedness for Catastrophe Is Lacking," <u>New York Times</u>, 24 August 2004: B1

⁵⁵ Marc Santora, B1

⁵⁶ Judy Silber, "Preparedness Worries San Francisco-Area Hospitals," <u>Knight Ridder Tribune Business</u> News, 30 March 2003: 1

hospital officials believe that they still remain vulnerable to a major biological or chemical emergency.⁵⁷

Another area of concern that worries some crisis planners working in the healthcare industry centers around the idea that while many hospitals have changed existing crisis plans to meet the threat of bioterrorism, some continue to overlook a greater potential threat: terrorism with explosives. 58 Arthur Kellerman, a writer for the magazine Modern Healthcare, sees this as an act of ignorance on the part of crisis communication planners. In his article he states that "worldwide, few acts of terrorism have involved the use of chemical or biological agents. In contrast, explosives and/or firearms have been used in countless acts of terrorism is countries such as Argentina, Bali, Columbia, Egypt, Israel, the Philippines, the United Kingdom, the U.S. and Yemen."⁵⁹ The obvious regularity of these terrorist strikes shows that terrorists seem much more capable of using explosive devices, than chemical or biological agents. Preparation must be taken to meet the risk of all possible situations. ⁶⁰

Are hospitals prepared to handle the threat of bioterrorism?

According to several articles published in various newspapers and journals, many hospitals lack elaborate plans to combat a bio-terror assault. An article published in Physicians Financial News magazine in September of 2003, states that although many urban hospitals have started to prepare for possible bioterrorism attacks, many "lack the medical equipment needed to handle the likely surge in patients during a bioterrorist

⁵⁷ Judy Silber, 1

⁵⁸ Arthur Kellerman, "A hole in the homeland defense," Modern Healthcare, Vol. 33, Issue 16, 2003: 23
59 Arthur Kellerman, 23

⁶⁰ Arthur Kellerman, 23

incident."⁶¹ The article refers to a study conducted by the General Accounting Office and reported on by the American Hospital Association, which sampled 1,482 urban hospitals throughout the United States. The study found that over half of the facilities in question had less than six ventilators per 100-staffed beds: not nearly sufficient for the response needed for a bioterrorism attack. Although four out of five hospitals in the study had an emergency response plan that addressed bioterrorism, many omitted vital information that could be deemed useful in the event of an emergency.⁶²

Similarly, a survey taken among hospitals in Kansas during May and September of 2002, found that many facilities fall short in bioterror preparations. Just 12 of the 19 hospitals involved in the study even responded, and out of those "only 67 percent…had a written plan to deal with bioterrorism." Since the survey, "the state has done much to shore up its weaknesses, but more needs to be done."

Recognizing the need for change

Most of the literature reviewed in this study revealed that hospitals feel under prepared to handle the threat of a possible terrorist attack. Alas, a majority of these facilities are making conscious efforts to see that they remain safe in the event of a major catastrophe.

An article that appeared in the Baltimore, Maryland newspaper, *The Daily Record*, found that "a grant of \$2.3 million [provided by the Health Resources and

⁶¹ "GAO: Many hospitals unready for bioterrorism," <u>Healthcare Purchasing News</u>, Vol. 27, Issue 9, 2003:

⁶² GAO: Many hospitals unready for bioterrorism, 10

⁶³ Alan Bjerga, "Kansas Hospitals Fall Short in Federal Bioterror Survey," <u>Knight Ridder Tribune Business</u>
<u>News</u>, 7 August 2003: 1

⁶⁴ Alan Bierga, 1

Services Administration] will help thirteen Maryland hospitals prepare for a [possible] bioterrorism attack."⁶⁵ The funding was awarded to the hospitals after they submitted proposals on their need for further crisis management planning. With the grant, the hospitals plan to "stockpile medications, purchase radios and equipment, enhance surveillance for biological hazards and set up isolation areas."⁶⁶

Some hospitals in Michigan also plan to use state issued funds to prepare for mass chaos situations. An article published in *Knight Ridder Tribune Business News* in July of 2004 stated that prior to the September 11, 2001 terrorist attacks, few Michigan hospitals had "moon suits or decontamination tents, and few hospital officials gave much thought to biological terrorism." Michigan has been awarded close to "\$96 billion to help public and private health and emergency services meet national standards for emergency preparedness."

Another article found in a July 2003 edition of *Knight Ridder Tribune Business*News spoke about the need for hospitals in Texas to receive funds to battle against a possible bioterrorist attack. During a 2002 survey, "rural and community hospitals reported the lowest levels of preparedness for an act of bioterrorism, [and] hospitals in urban areas also had crucial gaps in planning, facilities and supplies." Due to this severe lack in preparation, efforts are now being made to see that hospitals in the state become better equipped with the supplies and manpower needed to combat a serious condition.

_

⁶⁵ Debra Siedt, "Maryland hospitals try to prepare for bioterrorsim attack," <u>The Daily Record</u>, Baltimore, Md., 3 June 2004: 1

⁶⁶ Debra Siedt, 1

⁶⁷ Kim Norris, "Michigan hospitals use state funds to prepare for mass chaos," <u>Knight Ridder Tribune</u> <u>Business News</u>, 15 July 2004: 1

⁶⁸ Kim Norris, 1

⁶⁹ Jennifer Autrey, "Hospitals in Texas Want Funds to Combat Bioterrorist Attack, Survey Shows," <u>Knight Ridder Tribune Business News</u>, 20 July 2003: 1

A final article found in a July 20, 2003 edition of *Knight Ridder Tribune Business*News showed that some hospitals have actually taken steps to prepare for a catastrophic crisis. In fact, since September 11, 2001, Jackson Memorial and Broward General

Hospitals - both located in Florida – "have invested in new fences and security upgrades that would allow the premises to be sealed off if necessary." Both hospitals have also invested large sums of money on biohazard suits and respirators for decontamination teams. Doctors and other medical staff have been trained to properly handle the new equipment. These examples show that the medical community wants the safest possible environment for its patients and employees and some have taken substantial steps in achieving the goal.

Restructure of crisis plan since the 9/11 terrorist attacks

According to the literature, hospitals throughout the country believe that crisis planning should be a more collaborative effort than in past years. An article published in the news journal *Business Insurance* highlighted the fact that since the 9/11 attacks, New York hospitals "are joining forces to form a defensive front against bioterrorism." Many of the city's facilities have ignored their traditional rivalries and now share numerous pieces of information and resources. According to New York City hospital officials, "the relationships being forged now may eventually lead to a more cooperative approach to providing healthcare services."

⁷⁰ Charles Savage, "South Florida Hospitals Forced to Gear Up for Worst-Case Terrorism," <u>Knight Ridder Tribune Business News</u>, 20 July 2003: 1

⁷¹ Charles Savage, 1

⁷² Mary Sisson, "N.Y. hospitals work together on bioterror planning," <u>Business Insurance</u>, Vol. 36, Issue 37, 2002: 26

⁷³ Mary Sisson, 26

Furthermore, hospitals in other parts of the country have also agreed to collaborate on crisis communication plans. An article published in the journal *Health Care Strategic Management* in July of 2002 talked about "three Akron, Ohio-area hospitals [that] have formally agreed to share public relations resources in the event of a crisis or disaster." ⁷⁴ The plan lets hospitals in several different counties share expertise "in the form of onsite staffing or telephone consultation." ⁷⁵ Information will be shared in the event of both internal and external disasters. According to the article, no occasion has yet occurred that would require the plan's implementation.

In addition, a December 2003 article found in the magazine *Hospitals and Health Networks* detailed a new disaster planning exercise that encompasses hospitals from Boston, Miami and Seattle. Medical facilities from each city have become part of an emergency surgical response team. ⁷⁶ IMSuRT (International Medical Surgical Response Team) came into effect following the 1998 U.S. embassy bombings in Kenya and Tanzania and uses "specialty disaster medical assistance teams established to provide a rapidly deployable medical and surgical response for emergencies in the United States and to U.S. interests abroad." The team responded to the World Trade Center directly following the 9/11 terrorist attacks. According to the article, this new form of medical technology greatly increases chances for individuals to survive a large-scale natural disaster or terrorist attack. ⁷⁸

~

⁷⁴ "Akron, Ohio-area hospitals agree to collaborate on crisis communications plan," <u>Health Care Strategic Management</u>, Vol. 20, Issue 7, 2002: 13

⁷⁵ Health Care Strategic Management, 13

⁷⁶ Gina Rollins, "Disaster On-Call," Hospitals and Health Networks, Vol. 77, Issue 12, 2003: 24

⁷⁷ Gina Rollins, 24

⁷⁸ Gina Rollins, 24

Besides hospitals forming more collaborative efforts toward crisis management in the face of catastrophe, facilities have restructured plans in order to protect against the threat of bioterrorism. A July 2002 article found in the journal *Health Data Management* showed that hospitals throughout Florida started using an Internet based bioterrorism surveillance system. The system requires that physicians complete "a one-page paper form within two hours of treating a patient" that showcases possible symptoms for eight possible diseases brought about by a bioterror incident.⁷⁹ The system then lets physicians enter the information on the forms into a database for analysis on the basis of symptoms found. According to the article, this new technology will help medical centers respond to and control a possible bioterror epidemic.

A review of the literature showed that although many hospitals lack sufficient preparation for major catastrophic events, such as a natural disaster or terrorist attack, a majority of facilities realize the need for more efficient planning. Many healthcare organizations have installed new computer technology, various training programs for staff, and more detailed response procedures to fully combat crisis situations. Although no one can be sure when a crisis will occur, preparation remains the key for battling against future disasters.

Role of Hospital Staff during Crisis

Hospital Administration

According to the literature reviewed, the hospital administration, particularly the CEO, plays a large role in the management of a crisis. An article found in the magazine

⁷⁹ Joseph Goedert, "Information technology drafted to fight war against bioterrorism," <u>Health Data Management</u>, Vol. 10, Issue 7, 2002: 12,15

Business Forum details the role of managers during a crisis. In fact, the "decisions they make, or fail to make, often have profound political, economic, or social consequences." Proper crisis planning makes the role of hospital administration much less stressful during a crisis situation. Therefore, it becomes the role of the hospital public relations staff to keep hospital administration aware of new developments that take place during the crisis.

In a July 1993 article found in *Trustee* magazine, author Robin Cohn states that the hospital CEO should "be visible during the early stages of the crisis to express the hospital's feelings for those affected." After the initial crisis briefing, a designated spokesperson can take over for the CEO. The administration's main role is to oversee the situation and communicate with the public in a timely manner.

Physicians

During times of crisis in hospitals, physicians may be called upon to help coordinate, manage and treat victims of an emergency. In order to examine the physician's role during a crisis, the researcher reviewed an article found in the journal *Modern Healthcare*. Following the September 11, 2001 terrorist attacks on the United States, hospitals became confronted with the threat of anthrax outbreaks. Three hospitals (two in New York City and one in Connecticut) found themselves caught up in such a crisis. The article reports that even with little experience with new biological disease threats, doctors "at the three hospitals did their jobs exceedingly well. They moved quickly to confirm the suspicions of deadly bacteria, while at the same time mobilizing to

⁸⁰ Laurence Barton, "When Managers Find Themselves on the Defensive," <u>Business Forum</u>, Vol. 16, Issue 1 1991: 8

⁸¹ Robin Cohn, 19

treat patients as best they could."⁸² Although hospital operations shut down and those infected with the deadly bacteria died, doctors remained able to contain and provide care for those infected with the disease. By all accounts, the role of the physician (to treat and care for injured or sick patients) proved to work.

Nurses

Another group of hospital staff members that should be equipped with the knowledge to provide care during crisis are nurses. According to the literature, the events of September 11, 2001 brought about a change in the role of nurses in times of crisis.

An article found in *The Journal of Continuing Education in Nursing* found that "advance training in disaster preparedness provides nurses with valuable training to nationwide need for prepared first responders." Another issue highlighted in the article centers around the idea that nurses will hold responsibility in operating triage units during times of crisis. The goal is to provide care for the largest amount of victims of a potential disaster. The author believes that in the future, "nurses will be forced to make life-and-death decisions in a mass casualty incident [and] extensive continuing education training is a critical component to facilitate this decision-making process." **

Furthermore, an article written in an August 2004 edition of the *Journal of Nursing Education* found that because of new types of threats to the United States, incorporating bioterrorism education to nursing school curricula would be beneficial. In

⁸² Cinda Becker, "20/20 Hindsight," Modern Healthcare, Vol. 32, Issue 8, 2002: 8

⁸³ Carla Hilton & Vicky Allison, "Disaster Preparedness: An Indictment for Action by Nursing Educators," The Journal of Continuing Education in Nursing, Vol. 35, Issue 2, 2004: 59

⁸⁴ Carla Hilton & Vicky Allison, 59

fact, the Vanderbilt School of Nursing "established a National Center for Emergency Preparedness in December of 2002...which has several objectives, including the development of comprehensive professional curricula specifically designed for nurses."

After review of the literature, it seems apparent that hospitals along with nursing schools have begun to equip nurses with the training and expertise needed to respond to a major medical crisis.

Public Relations

Not surprisingly, the public relations departments of all hospitals play the most extensive role in crisis management.

According to Litwin, public relations practitioners must be able to anticipate crisis, be prepared for any ramifications caused by the event, and then communicate clearly with the public and the media regarding the details of the situation. In his book, *The Public Relations Practitioner's Playbook*, Litwin outlines the steps that should be taken by the practitioner during the initial crisis, including recognizing there is a crisis, informing staff of the crisis, putting crisis plans into operation, establishing [a] command post...[and] establishing communication with emergency agencies. Litwin's analysis, although not specifically designed for hospitals, would suit any medical facility during the initial stages of a crisis.

Similarly, an article written by public relations expert Robert Heath in a

December 1998 edition of *Safety Science* magazine outlines the crisis management shell structure. Heath believes the crisis manager, the person in charge of the public relations

 ⁸⁵ Connie J. Steed; Linda A. Howe; Rosanne H. Pruitt & Windsor W. Sherrill, "Integrating Bioterrorism Education into Nursing School Curricula," <u>Journal of Nursing Education</u>, Vol. 43, Issue 8, 2004: 362-363
 ⁸⁶ M. Larry Litwin, 165

⁸⁷ M. Larry Litwin, 169

team for an organization, "has ultimate authority and responsibility for management of the crisis."88 He also believes that the crisis manager needs to possess an ability to operate during confusing situations, which may be hindered by missing or conflicting information. According to Heath, the public relations staff at any organization, including a hospital, needs to handle large amounts of stress and be able to provide a balance between command and coordination.89

⁸⁸ Robert Heath, "Dealing with the complete crisis- the crisis management shell structure," <u>Safety Science</u>, Vol. 30, Issue 1-2, 1998: 144

89 Robert Heath, 144

Chapter 3

Research Design

The researcher used both qualitative and quantitative research methods to gather primary data for this study. According to communication researchers Roger Wimmer and Joseph Dominick, qualitative research "uses a flexible questioning approach...although a basic set of questions is designed to start the project, the researcher can change questions or ask follow-up questions at any time." On the other hand, quantitative research "uses a static or standardized set of questions. All respondents are asked the same questions [and] follow up questions must be included in the questionnaire or measurement instrument before the research project begins." Using these two varying approaches, the researcher was able to gather data useful to the completion of this thesis.

Qualitative Research

In-depth personal interviews served as the lone form of qualitative research for this study. The researcher decided on this particular approach in order to gather varying points of view regarding the crisis communication plans of public relations specialists working in four southern New Jersey hospitals. Because the sample in question is small, interviewing seemed the best approach to gathering the most relevant information.

⁹⁰ Roger Wimmer and Joseph Dominick, <u>Mass Media Research: An Introduction.</u> CA, Wadsworth/Thomas Learning Inc., 47

⁹¹ Wimmer and Dominick, 47

Personal interviews also allowed respondents to provide elaborate data concerning their "opinions, values, motivations, recollections, experiences, [and] feelings." ⁹² If conducted properly, interviews become a useful technique in mass communication research.

The first step in this study required the researcher to develop approximately 20 in-depth questions for use in interviews with the four hospital public relations specialists. Hospitals and specialists selected in the study included: Peggy Leone, Assistant Vice President of Public Relations for Cooper Hospital in Camden; Gregory Potter, South Jersey Regional Medical Center in Vineland; Debbie Callahan, The Memorial Hospital of Salem County in Salem; and Richard Bellamente, Underwood Memorial Hospital in Woodbury.

Each interview required basic demographic data collection such as age, sex, educational background and years of service to his/her particular organization. The following questions sought in-depth responses and required specific information from a subject or group, the subject's opinions about varying issues of the crisis communication process, and monitoring the actions of a person or group: "What particular types of crisis plans exist within your organization?"; "Does you facilities crisis plan require improvement?"; "Was a specific model used to develop existing crisis strategies?"; "Has your organization dealt with a catastrophic crisis or threat of crisis to date?" Questions dealing with the attitude of the interviewee will ask: "Do you feel your organization is prepared to deal with a catastrophic crisis in a systematic fashion?" or "Do hospital personnel feel they could resolve or respond to catastrophic crisis in a timely manner?"

Finally, questions posed about the behavior of employees asked: "Have

⁹² Wimmer and Dominick, 47

employees been tested or trained in situations of catastrophic crisis management to see how they would react?" and "What have employees done in past crisis situations to see that order is kept and/or restored after a conflict?" The information attained through each interview comprised all qualitative research conducted in this thesis.

Quantitative Research

The researcher used surveys as the specific form of quantitative research for this study. The researcher decided to use this particular research method to acquire data because of its cost efficiency, ease of collection, and lack of geographic boundaries.

Questions asked varied between open-ended, multiple choice, forced response, and rating scales. All questions asked in the survey appeared the same to each respondent.

Questions posed in the nationwide study included: Does your organization feel satisfied with its current crisis plan? or Will your organization be prepared to respond to a catastrophe such as a major accident (plane crash, train derailment), disease outbreak, or bioterrorism attack?

The researcher was able to sample a group of 71 hospitals all owned by Community Health Systems, Inc. based in Brentwood, TN. The researcher sent the survey via email to the public relations/marketing directors at 40 of these hospitals. Eight out of the 40 hospitals completed and returned the survey, which came to a 17.5 percent response rate.

Chapter 4

Research Results

The researcher conducted both qualitative and quantitative studies for this thesis.

Qualitative research included in-depth personal interviews with public relations practitioners from four southern New Jersey hospitals. The researcher chose four different hospitals in four separate counties in the state. The hospitals were Underwood Memorial in Gloucester County, Cooper University in Camden County, South Jersey Regional Medical Center in Cumberland County and the Memorial Hospital of Salem County.

Interview I.

The first interview took place at Underwood Memorial Hospital in Woodbury, New Jersey. The researcher met with the Director of Community Relations, Richard Bellamente. Bellamente has been in this position for seven years. Prior to working at Underwood, he owned a small marketing firm where he created both print and radio advertisements for local hospitals. Bellamente's holds a bachelor's degree in business administration from Long Island University – C.W. Post campus. He has worked in the public relations/marketing industry for the past 40 years.

As director of community relations at Underwood, Bellamente works in the areas of advertising, internal/external communications, media relations and marketing. He

reports directly to the President/CEO of the hospital on a daily basis. He believes that his job requires him to keep an open and honest relationship with the public.

To gain an understanding about crisis management at southern New Jersey hospitals, the researcher asked Bellamente several questions about Underwood's crisis plan. The first question addressed Underwood Memorial Hospital's specific plan to deal with catastrophic crisis. His response was that his organization possessed what he called an emergency preparedness plan. He stated that this particular plan goes into effect only during a Code Blue (the highest level) emergency occurring either on or away from the premises. Bellamente believes that during a Code Blue situation, it becomes the hospital's first priority to provide care for any injured person.

He then spoke about the plan itself and how it originated. An internal safety committee drew up Underwood's emergency preparedness plan taking into account all of the hospital's clinic and support centers. The plan involves the hospital's medical staff, administrators, security, emergency staff and admissions department. According to Bellamente, everyone working in the facility plays a role in the event of a crisis.

The researcher then posed another question regarding the hospital's response strategy during a catastrophic crisis. Bellamente stated that everything done during a catastrophic emergency response is designed specifically for the optimum treatment of all victims. This means making sure the hospital has efficient services to handle an influx of patients. If the hospital cannot provide adequate care, then it must provide immediate response and then send victims to a larger trauma center.

A third question asked whether the hospital's crisis or emergency preparedness plan had been amended since September 11, 2001. The answer to this question was a

definite yes. Bellamente believes that his organization's plan has developed into an all hazards response mechanism since the terrorist attacks. He believes that proper communication lies at the forefront of any emergency preparedness plan. If nothing else, he feels that the events of September 11, 2001 helped hospitals throughout the country learn how to better react to future crisis situations.

A final question that the researcher posed to Bellamente dealt with bioterrorism preparation since September 11, 2001. He feels that preparation for chemical, nuclear or bioterror incidents has become the norm for hospitals throughout the country.

Underwood Memorial Hospital took its emergency plan and incorporated specific aspects to deal with terrorism in general. Bellamente believes that possessing a plan to respond to terrorist attacks, whether chemical, nuclear or bioterror increases survivability among victims of a disaster. He feels that his hospital is now better prepared to deal with a crisis on any scale.

Interview II.

The researcher conducted the second interview with Peggy Leone, assistant vice-president of public relations at Cooper University Hospital in Camden, New Jersey.

Leone has been working at Cooper Hospital for the past 25 years in various positions, all in public relations. She started as a public relations assistant, then became the hospital's media relation's director before becoming the vice president of public relations. Leone earned her M.A. in public relations at Glassboro State College. As she finished her master's degree, Leone also gained her APR (Accreditation in Public Relations) from the

Public Relations Society of America. She attributes her success as a public relations practitioner to her many years of both educational and on-the-job experience.

The first question that the researcher posed to Ms. Leone asked whether or not she feels that hospitals throughout the United States are prepared to respond to catastrophic crises. She believes that the response depends on the facility and that some hospitals remain more prepared than others. However, the push for nationwide preparation is much stronger now than in previous years.

Leone went on to speak about the TOP-OFF drill that took place in New Jersey in April of 2005. This drill, involving hospitals all across the state, tested the emergency response of all members of hospital personnel. She stated that Cooper Hospital took part in the drill for two full days. Her facility set up an additional emergency room, a triage unit and a command post and operated as if the situation was an actual disaster. Ms. Leone believes that the drill served as an extremely helpful tool for her facility. All members of the hospital staff took part and learned the best ways to respond to future catastrophic situations.

The researcher then asked Leone if she felt that Cooper Hospital was prepared to respond to an actual catastrophic crisis. She answered by describing Cooper Hospital as a Level One Trauma Center – a facility equipped to handle any large-scale crisis situation. However, during an actual crisis, the hospital will put varying protocols in place depending on the specific situation. She described Cooper Hospital as an everchanging facility that runs its own drills frequently to make sure it stays at the forefront of emergency preparation. She believes that her facility is devoted to the safety and security of all those in the community.

Leone feels that bioterrorism preparation has become extremely important. In the event of a bioterror situation, Cooper Hospital has a decontamination shower to rinse the body of any harmful chemical. More than anything, Leone feels that bioterrorism preparation means being prepared as best as possible for any potential crisis situation.

A final question presented to Leone asked what aspect of her hospital's ability to respond to crisis needed improvement. She could not decide which area needed the most improvement, but said that communication can always be improved. She added that it is an aspect of her hospital that she personally updates on a daily basis.

Interview III.

The researcher conducted the third interview with Debbie Callahan, director of marketing for Memorial Hospital of Salem County. Callahan earned a Bachelor's degree in Communications from Catalpa College in 1979. She began working at the Memorial Hospital of Salem County in 1990 and she has held various positions before becoming the marketing director. She has held her current position for just over five years.

The researcher began the interview by asking Callahan if she felt that hospitals throughout the country are prepared to respond to catastrophic crises. She believes that many hospitals have done their homework when it comes to crisis preparation. She also thinks that her facility may be better equipped to respond than some others because of its proximity to PSE&G and a Nuclear Power Plant. In the event that an accident happens at one of these locations, Memorial Hospital of Salem County must be prepared to provide care for injured individuals.

Callahan also feels that her facility improved its crisis plan following the September 11, 2001 terrorist attacks. Since the attacks, Salem Hospital implemented the HEICS system (Healthcare emergency incident command system), which involves running more crisis drills and fine-tuning the existing crisis plan. The new system takes into account the entire hospital staff, from the maintenance staff up to the CEO. She believes that this creates a much more global approach to crisis planning.

The researcher then asked Callahan if her facility has responded to any catastrophic crisis in recent years. The last major crisis that she remembered took place in 2003. A large snowstorm shut down the entire county, but not the hospital. Because the hospital's crisis plan contained procedures for dealing with events like this, ambulances were able to reach sick or injured people in need of treatment. The National Guard even traveled out in military Hummer's and brought dialysis patients to treatment. By putting the crisis plan into effect, the hospital responded and contained a potentially disastrous crisis.

Callahan believes that the key piece to a fully functional crisis plan is education. Hospital personnel need to educate and prepare themselves for the worst-case scenario. She said that a crisis planner should anticipate any crisis and also be ready to provide treatment, communicate with the public and keep the situation calm. According to Callahan, proper preparation will alleviate any crisis situation.

Interview IV.

The researcher conducted a fourth interview at South Jersey Regional Medical

Center with Greg Potter. Potter earned his M.A. in public relations from Rowan College

of New Jersey in 1997. Following graduation, Potter worked at Villanova University in Pennsylvania as an advisor of student activities. He also advised the college radio and television stations. After seven years of service, Potter left his position and took a job at South Jersey Regional Medical Center as a public relations specialist. He's been working there for just under one year.

The first question that the researcher posed to Potter dealt with his hospital's ability to respond to a crisis situation. Being new to the organization, Potter didn't give much background on any past crisis situations. But, he did go into detail about the TOP-OFF exercise that took place in New Jersey in April of 2005. South Jersey Regional Medical Center took part in the drill, which involved more than one year of planning. The hospital responded to mock patients as if they were infected with a chemical agent such as anthrax. Although Potter did notice several glitches in his hospital's response, overall, he feels that the hospital would be able to properly respond during a real crisis event.

Potter believes that a hospital's ability to properly communicate with the public during a crisis is vital to its success. If the hospital can respond to victims and contain the crisis then it will be able to function and operate normally in the future.

Survey Results

To obtain quantitative research for this thesis, the researcher sent surveys to hospitals throughout the United States. Community Health Systems (CHS) owns all of the facilities used in the study. The researcher sampled all 71 hospitals owned by CHS. Each email survey asked the same questions and was sent to 40 of the 71 hospitals. The

researcher received seven completed surveys after three weeks of follow up emails. This produced a response rate of 17.5 percent. Listed below are the results of the survey tabulated in percentages where applicable.

Question 1: Hospitals throughout the United States are prepared to deal with catastrophic crises.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
14.3%	71.4%	14.3%	0%	0%

Question 2: What is your organization's view on the importance of a catastrophic crisis plan?

Important	Somewhat Important	Neutral	Somewhat Unimportant	Unimportant
86.0%	14.3%	0%	0%	0%

Question 3: Is your organization better prepared to respond to catastrophic crisis, following the September 11, 2001 terrorist attacks?

Interpretation: Each hospital that responded to the survey feels that it is more prepared to react to a crisis now. A majority of the facilities say that they now conduct more crisis preparation drills on a more regular basis to prepare for an emergency or disaster.

Question 4: In order, list the factors your organization believes most important when dealing with a catastrophic crisis?

	Contacting media outlets	Setting up a command center	Preparing a triage unit	Notifying next of kin of victims
Rank 1	0%	71.4%	28.5%	0%
Rank 2	0%	28.5%	71.4%	0%
Rank 3	0%	0%	0%	100%
Rank 4	100%	0%	0%	0%

Question 5: Has your organization ever dealt with a major catastrophic crisis? (i.e. earthquake, disease outbreak, flash flood)

Yes	No	
42.9%	57.1%	

Question 6: Does your organization have a designated media spokesperson in the event of a catastrophic crisis?

Yes	No
100%	0%

Question 7: How important is bioterrorism (i.e. use of chemical weapons and/or mass plagues started by release of deadly pathogens) preparation to your organization since the events of September 11, 2001?

Important	Somewhat Important	Neutral	Somewhat Unimportant	Unimportant
71.4%	14.3%	14.3%	0%	0%

Question 8: Is there any part of your organization's crisis plan that you believe needs to be changed to ensure a more structured response to a catastrophic crisis?

Interpretation: A majority of those who completed the survey believe that their particular organization always needs to restructure and reevaluate old procedures. Just one of the seven individuals that completed the survey believes that his/her facility's crisis plan does not need improvement.

Question 9: How many years have you been working for your particular organization?

Less than 1 year	Between 1 and 5	Between 5 and 10	More than 10 years
	years	years	
14.3%	42.8%	0%	42.8%

Question 10: Our organization's crisis plan was developed by:

One individual working inside	A team of individuals	A model of another	A government agency	No crisis plan developed
the organization	working inside the organization	organization's plan		
0%	85.7%	0%	14.3%	0%

Question 11: What is your gender?

Male	Female
42.9%	57.1%

Question 12: What is your most recent degree received?

B.A.	M.A.	Ph.D.	J.D.	
71.4%	14.3%	0%	14.3%	

Question 13: What is your academic background?

Public relations	Human Resources	MBA	Other
57.1%	14.3%	0%	28.5%

The overall results of this study show that a majority of hospitals throughout the country contain catastrophic crisis plans. A majority (71.4 percent) of these hospitals also feel prepared to respond and contain a crisis in the event that one does occur.

Chapter 5

Discussion

After completing qualitative and quantitative studies, the researcher found that hospitals in southern New Jersey and throughout the United States report feeling prepared to respond to catastrophic crisis situations. The majority also report improving their crisis plans. Each of the four individuals interviewed felt that his/her facility was prepared to respond to any disaster. In addition, nearly 86 percent of those surveyed believe that their facility was also ready to respond.

Following the four interviews, the researcher concluded that each hospital appeared well prepared to respond to a catastrophic emergency. Cooper Hospital in Camden seemed the most equipped of all the southern New Jersey facilities. The hospital has a large trauma department and has dealt with many past crisis situations. During the Bellmawr Post Office anthrax scare in 2001, Cooper provided an immediate triage unit at the scene and remained in service for over three days. Cooper has proved its ability to respond to catastrophic crisis on several occasions. Each day, this facility sees patients with gun shot wounds, large knife lacerations and injuries sustained in serious automobile accidents. Crisis seems to be a daily event for this hospital.

The researcher feels that the next most prepared hospital of the four interviewed was South Jersey Regional Medical Center. Because of its location in a largely populated area of Cumberland County, SJRMC responds to major emergencies on a consistent basis.

Following in preparation was Underwood Memorial Hospital in Gloucester County. Again, this facility responds to many emergencies but sends a majority of its trauma victims to Cooper Hospital. Underwood could certainly contain a small-scale crisis. But, for a catastrophic event, this hospital would need assistance in treating its victims.

The researcher feels that the Memorial Hospital of Salem County would be the least prepared for a catastrophic emergency for one reason: its size. Compared to the other three facilities, Memorial is the smallest. The Memorial Hospital of Salem County could certainly respond to minor crisis incidents, but in the researcher's opinion, is simply too small to alleviate any major catastrophe.

While all four hospitals are rated from most to least prepared, the researcher feels that each facility could properly respond to a crisis situation. The only determining factor would be the severity of the crisis.

According to the national survey, 86 percent of survey respondents found that their organization's catastrophic crisis plan was one of the top tools that their facility possessed. When specifically asked if their organization was better prepared to respond to crisis following September 11, 2001, most respondents felt that their facility was better prepared now. Several respondents stated that their facility conducts more crisis preparation drills now to prepare for a disaster or emergency.

When asked about the order of response during a catastrophic crisis, a majority (71.4 percent) of respondents believed that setting up a command center would be the first order of response. Second most important would be preparing a triage unit, followed by notifying family of victims and then contacting media outlets.

Bioterrorism preparation seemed important to a majority (71.4 percent) of respondents. Also, most all believed that crisis plans need to be updated and reevaluated on a regular basis.

Both the qualitative and quantitative studies used in this thesis disproved the researcher's hypotheses.

H1: Hospitals in southern New Jersey, along with hospitals throughout the country, are not properly prepared to respond to catastrophic crisis situations. According to all four interviews conducted as well as a majority (86 percent) of those surveyed, hospitals do feel prepared to respond and/or contain catastrophic crises.

H2: Many hospitals have not changed or improved crisis plans to fully prepare for terrorist attacks following the September 11, 2001. All those interviewed and a majority of those surveyed felt that their ability to respond to crisis had improved since September 11, 2001. Six out of seven survey respondents stated that their hospital's crisis plan had been improved since September 11, 2001 and that these plans are constantly reevaluated.

This study had several limitations regarding quantitative research, the first being the sample of hospitals for the survey. The researcher intended to sample over 500 hospitals throughout the United States. After contacting the American Medical Association and being denied access to a list of hospitals, it became apparent that this universe was simply not available to the researcher. The researcher then contacted Community Health Systems, which owns one of the hospitals used for qualitative research in this thesis. The administrative staff at Community Health Systems provided assistance to the researcher and allowed access to their list of 71 nationwide hospitals. The researcher then sampled 40 of these facilities and sent email surveys to each.

The second limitation to quantitative research for this study had to do with the low response rate of the survey. Only seven of the 40 hospitals that received the survey completed and returned it. This produced a 17.5 percent response rate. The researcher believes that because this percentage is so low, it becomes difficult to extrapolate these results to the entire population of hospitals throughout the country.

The researcher believes that there may be several reasons for the two major limitations in this study. First, hospitals do not want to seem unprepared for catastrophic crisis and therefore, failed to provide the researcher with accurate data regarding their preparation. Second, hospitals may be afraid that by letting someone research their facility, they will be breaching their own security.

Since September 11, 2001 most organizations in this country began to operate under strict security measures. Hospitals proved no different. Because of these strict security codes in hospitals, it is possible that the results of this study do not accurately reflect the true nature of catastrophic crisis at hospitals in the United States.

Further quantitative research should be conducted for a longitudinal study. On a qualitative basis, this researcher received full cooperation from all individuals and facilities involved. But for the quantitative portion of the study, the researcher ran into many problems with sample and response rate. To gain accurate survey information, future researchers may need to alter this study to produce more precise results.

References

- Anonymous. (2002). Akron, Ohio-area hospitals agree to collaborate on crisis communications plan. *Health Care Strategic Management*, vol. 20 (7), 13.
- Anonymous. (2004). Are you prepared for bioterrorism? *Healthcare Purchasing News*, vol. 28 (10), 26.
- Anonymous. (2003). GAO: Many hospitals unready for bioterrorism. *Healthcare Purchasing News, vol. 27 (9),* 10.
- Anonymous. (2003). Hospitals unprepared for bioterrorism: Report. *Physicians Financial News*, vol. 21 (11), 38.
- Anonymous. (2003). Most hospital ER's not prepared for bioterrorism; patient violence biggest threat to ER staff. *Health Care Strategic Management*, vol. 21 (1), 7.
- Arnold, W.E. (1980). Crisis Communication. Dubuque, Iowa: Gorsuch Scarisbrick.
- Ash, S.R. and Ross, D.K. (2004). Crisis management through the lens of epidemiology. *Business Horizons*, vol. 47 (3), 49-57.
- Autrey, J. (2003, July 20). Hospitals in Texas want funds to combat bioterrorist attack, survey shows. *Knight Ridder Tribune Business News*.
- Barton, L. (1991). When managers find themselves on the defensive. *Business Forum*, vol. 16 (1), 8-13.
- Becker, C. (2002). 20/20 hindsight. Modern Healthcare, vol. 32 (8), 8-10.
- Bjerga, A. (2003, August 7). Kansas hospitals fall short in federal bioterror survey. Knight Ridder Tribune Business News.
- Cohn, R. (1993). Pre-crisis management: Protecting the hospital's image. *Trustee, vol.* 46 (7), 18.
- Covello, V.T. (2003). Best practices in public health risk and crisis communication. Journal of Health Communication, vol. 8 (4), 5-8.
- Fearn-Banks, K. (1996). Crisis Communications: A Casebook Approach. Mahwah, NJ: Lawrence Erlbaum Associates.
- Goedert, J. (2002). Information technology drafted to fight war against bioterrorism. Health Data Management, vol. 10 (7), 12-18.

- Heath, R. (1998). Dealing with the complete crisis- the crisis management shell structure. *Safety Science*, vol. 30 (1-2), 139-150.
- Heath, R. (1998). Looking for answers: Suggestions for improving how we evaluate crisis management. *Safety Science*, vol. 30 (1-2), 151-163.
- Hickman, J.R. and Crandall, W. (1997). Before disaster hits: A multifaceted approach to crisis management. *Business Horizons*, vol. 40 (2), 75-79.
- Hilton, C. and Allison, V. (2004). Disaster preparedness: An indictment for action by nursing educators. *The Journal of Continuing Education in Nursing*, vol. 35 (2), 59-65.
- Hudson, T., Haugh, R., Santamour, B., Chabin, M., and Glabman, M. (2001). Are you ready? Hospitals & Health Networks, vol. 75 (11), 38-50.
- Kellerman, A. (2003). A hole in homeland defense. *Modern Healthcare, vol. 33 (16)*, 23.
- Levy, C.J. and Zernike, K. (2003, August 16). Lessons learned on 9/11 help hospitals respond. *The New York Times*, pg. B12.
- Littlejohn, R.F. (1983). Crisis Management: A Team Approach. New York: AMA Membership Publications Division, American Management Associations.
- Litwin, M.L. (2003). The Public Relations Practitioner's Playbook: A Synergized Approach to Effective Two-Way Communication. Dubuque, Iowa: Kendall/Hunt Publishing Company.
- MacPherson, P. (1996). Are hospitals ready to respond? *Hospitals & Health Networks*, vol. 70 (1), 39-40.
- Marra, F.J. (1998). Crisis communication plans: Poor predictors of excellent crisis public relations. *Public Relations Review, vol. 24 (4), 461-474.*
- Merriam-Webster Online Dictionary. Retrieved October 15, 2004 from www.m-w.com
- Murphy, J.K. (2004). After 9/11: Priority focus areas for bioterrorism preparedness in hospitals. *Journal of Healthcare Management, vol. 49 (4),* 227-235.
- Norris, K. (2004, July 15). Michigan hospitals use state funds to prepare for mass chaos. Knight Ridder Tribune Business News.
- Penrose, J.M. (2000). The role of perception in crisis planning. *Public Relations Review, vol. 26 (2),* 155-171.

- Roach, T.J. (2004). Planning for a crisis. Rock Products, vol. 107 (4), 12.
- Rollins, G. (2003). Disaster on-call. Hospitals & Health Networks, vol. 77 (12), 24.
- Santora, M. (2004, August 24). Health experts say preparedness for catastrophe is lacking. *The New York Times*, pg. B.1.
- Savage, C. (2003, July 20). South Florida hospitals forced to gear up for worst-case terrorism. *Knight Ridder Tribune Business News*.
- Siedt, D. (2004, June 3). Maryland hospitals try to prepare for bioterrorism attack. *The Daily Record*, pg.1.
- Silber, J. (2003, Mar. 30). Preparedness worries San Francisco-area hospital. *Knight Ridder Tribune Business News*.
- Sisson, M. (2002). N.Y. hospitals work together on bioterror planning. *Business Insurance*, vol. 36 (37), 26.
- Steed, C.J., Howe, L.A., Pruitt, R.H., and Sherrill, W.W. (2004). Integrating bioterrorism education into nursing school curricula. *Journal of Nursing Education*, vol. 43 (8), 362-367.
- Take control of your image during hospital disasters, media scrutiny. (1998). Healthcare PR & Marketing News, vol. 7 (22), 1.
- Wimmer, R.D. and Dominick, J.R. (2003). *Mass Media Research : An Introduction*. CA: Wadsworth/ Thomson Learning, Inc.