

Bioterrorism: What Should Hotels Do to Reduce the Risk?

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ABSTRACT

The risk of a terrorist attack at any one hotel is low, but the consequences are dire, making it important for hoteliers to protect hotel guests and assets to the fullest extent possible. Terrorists cause fear and use violence to make their cause known. Biological weapons have the potential to harm larger populations than explosives, especially if released into the air, building ventilation systems, or water supplies. The types of hotels that are most at risk serve international customers, hold an iconic brand, or are owned by persons considered to be part of an “enemy” group. This study uses a Delphi method to poll hotel security managers about critical and feasible measures that hotels should take to prevent acts of bioterrorism. It is one of the first studies to investigate guidelines for bioterrorism in the hotel industry. As such this study can be used as a foundation for future research.

Key Words: bioterrorism, hotels, risk management, security

INTRODUCTION

Since the September 11, 2001 terrorist attack on the World Trade Center, the United States has recognized the global risk of terrorism. Although the risk of a terrorist attack at any one hotel is very low, the severity of the consequences is great, making it important for hoteliers to understand terrorist motives and to protect hotel guests and assets to the fullest extent possible.

Terrorists operate through the use of fear and social disruption and use violence to make their message known to a global audience. Most terrorist attacks currently use physical means such as bombs. Mohtadi & Murshid (2006) reported that only 56 of 23,000 incidents included in the National Memorial Institute for the Prevention of Terrorism *Terrorism Knowledge Base* used chemical or biological tactics. However, chemical and biological weapons have the potential to harm a much larger population than explosives, especially if released into the air, building ventilation systems, or water supplies.

Biological weapons could be introduced into a hotel through supplies received, or through contamination of water and air intakes. Individual members of a terrorist group may even be infected with a deadly and contagious disease and then, as “suicide coughers,” place themselves in public places where they can spread the disease (Bhardwaj, Srivastava, & Karan, 2009).

The SARS epidemic of 2003 is a case that shows the ease with which a disease can spread globally and affect the hotel industry. Even though there is little evidence to suggest that the SARS epidemic was used as a bioterrorist attack, the results on the hotel industry were similar to those that can result from an attack. After the SARS epidemic occurred there was an instant drop in hotel occupancy rates that did not normalize for 6 months (Henderson & Ng, 2004).

The threat of a biological attack can come from anywhere. There have been documented cases of disgruntled employees who have used biological weapons against fellow employees or customers with criminal intent. In one case, a laboratory worker placed donuts contaminated with *Shigella* in an employee break room for others to eat (Ashford et al., 2003). In another case a supermarket employee contaminated 200 pounds of ground beef with an insecticide, making customers ill (Boulton, Stanbury, Wade, Tilden, Bryan, Payne, & Eisenga, 2003).

Hotels share a number of characteristics that make them potential terrorist targets for bioterrorism. Terrorists look for soft or weak targets where their acts will gain maximum media coverage (Bhandari, 2009; Pizam, 2010). Yet in the hotel industry, signs of strength and protection, such as armed guards, are not acceptable to guests (Feickert, Verma, Plaschka, & Dev, 2006). Hotels most at risk are those that cater to international guests, because worldwide media will cover a bioterrorism event at these locations. Additionally, brands or properties owned by companies viewed as “the enemy” by a terrorist group are more at risk because they may be viewed as “legitimate” targets (Pizam, 2010).

An act of bioterrorism will impair tourism for an entire region. Hoteliers must consider ways in which they can deter the use of biologic weapons against their guests and properties. Security can become a competitive advantage (Kekovic & Markovic, 2009). The purpose of this study is to identify feasible and critical guidelines for bioterrorism prevention in the hotel industry.

LITERATURE REVIEW

FEMA published guidelines for risk assessment and mitigation of all varieties of terrorist attacks on buildings (Federal Emergency Management Agency, 2003; 2005) Within these guidelines were the following recommendations for hotels:

- Light, secure, and monitor water service access points
- Install intrusion detection sensors for all utility services to the building
- Maintain interior and exterior video surveillance
- Restrict access to mechanical rooms, loading docks, roofs, and air vents
- Visitor screening access control during night-time hours

- Rehearse internal emergency plans
- Establish a liaison with law enforcement and first responders

While the recommendations provided by FEMA (2005) are useful, little research has been conducted relating specifically to bioterrorism in hotels. Smith(2006) used the Delphi technique to identify strategies recommended by tourism security professionals for terrorism risk management. Fifty-four strategies were identified from this process including Training, Communications/Liaison, Planning/Assessment, Background Checks, ID Badges/Secure Entrance, Specialty Security Units (i.e. bicycle, horse, or motorcycle), Architectural Design, Media Cooperation, and Technology-Based Strategies. The strategy ranked highest for criticality was training first responders, while technology-based strategies ranked lowest.

These sets of guidelines (e.g. Federal Emergency Management Association 2005; Smith, 2006) show common themes in bioterrorism preparedness. However, there are differences, as the FEMA guidelines are oriented toward protection of a building and have an engineering emphasis. Conversely, the Smith guidelines include aspects more pertinent to event management.

RESEARCH QUESTIONS

The need exists for practical guidelines to reduce the bioterrorism risk in hotels. No guidelines specific to hotels have yet been developed with input from hotel security managers. Guidelines are needed to establish best practices and security benchmarks, and to develop training programs for managers and employees. This study attempts to investigate these areas by examining the following research questions.

1. What should hotels be doing to reduce the risk of bioterrorism?
2. How feasible and critical are each of the strategies?

METHODS

This study will use a three-stage Delphi method in the manner described by Smith (2006). The Delphi method was chosen because it allows input from experts across a wide geographical distance. Interaction among participants occurs, but without face-to-face interaction, removing some of the social barriers to giving genuine feedback. A core group of 10-15 academic and practicing security experts will be identified from professional literature and professional conference rosters. Each will be invited to participate, and asked to nominate others.

The Delphi study will be conducted in three phases. In the first stage, a compilation of the FEMA (2005) and Smith (2006) recommendations will be sent to each participant for review. They will be asked to make a list of strategies that hotels should employ to prevent acts of bioterrorism. For the second round, the panel will be sent the compiled strategies and asked to evaluate them according to importance and feasibility. In the third round the respondents will rank and rate each item again.

The average feasibility rating for each strategy identified will be calculated. Strategies will be divided into quadrants based on feasibility and ranking according to the method used by Smith (2006).

IMPLICATIONS

This study is of importance to practitioners as the information derived can be used to prioritize strategies for bioterrorism prevention and response. As such this study can be utilized as the basis for establishing industry best practices and benchmarks, as well as be used to develop training materials and programs. In addition, this study is of importance to the academic community as it is one of the first studies to investigate guidelines for bioterrorism in the hotel industry. As such this study can be used as a foundation for future research.

REFERENCES

- Ashford , D.A., Kaiser, R.M., Bales, M.E., Shutt, K., Patrawalla, A., McShan, A., . . . Dannenberg, A.L. 2003). Planning against biological terrorism: Lessons from outbreak investigations. *Emerging Infectious Diseases*, 9,515-519.
- Bhandari, R. K. (2009). Tourism and terrorism: Issues and challenges. *Tourism Recreation Research*, 34, 95-96.
- Bhardwaj, P., Srivastava, J. P., & Karan, J. (2009). Bioterrorism: An imminent public health threat. *Internet Journal of Epidemiology*, 7(1).
- Boulton, M., Stanbury, M., Wade, J., Tilden, D., Bryan, D., Payne, J., & Eisenga, B. (2003).Nicotine poisoning after ingestion of contaminated ground beef. *MMWR: Morbidity & Mortality Weekly Report*, 52, 413-416.
- Feickert, J., Verma, R., Plaschka, G., & Dev, C. S. (2006). Safeguarding your customers: The guest's view of hotel security. *Cornell Hotel & Restaurant Administration Quarterly*, 47, 205-205.
- Federal Emergency Management Agency. (2003). *Reference manual to mitigate potential terrorist attacks against buildings: providing protection to people and buildings.*: Retrieved from <http://www.fema.gov/library/viewRecord.do?id=1559&fromSearch=fromsearch>.
- Federal Emergency Management Agency. (2005). *Risk assessment: A how-to guide to mitigate potential terrorist attacks against buildings.* (FEMA Publication 452). Retrieved from <http://www.fema.gov/library/viewRecord.do?id=1938&fromSearch=fromsearch>

- Henderson, J. C., & Ng, A. (2004). Responding to crisis: severe acute respiratory syndrome (SARS) and hotels in Singapore. *International Journal of Tourism Research*, 6, 411-419. doi: 10.1002/jtr.505
- Kekovic, Z., & Markovic, S. (2009). Security as a factor of competitive advantage in tourism. *Tourism & Hospitality Management*, 15, 291-303.
- Mohtadi, H., & Murshid, A. (2006). *A global chronology of incidents of chemical, biological, radioactive and nuclear attacks: 1950-2005*. Retrieved from National Center for Food Protection and Defense website:
<http://www.ncfpd.umn.edu/index.cfm/research/education-programs/>
- Pizam, A. (2010). Hotels as tempting targets for terrorism attacks. *International Journal of Hospitality Management*, 29(1), 1. doi: 10.1016/j.ijhm.2009.10.019
- Smith, C. (2006). *Development of prototype guidelines for risk management against terror attack in the tourism industry: A Delphi study*. Ph.D. 3270816, Texas A&M University, United States -- Texas. Retrieved from
<http://proquest.umi.com/pqdweb?did=1367829791&Fmt=7&clientId=60760&RQT=309&VName=PQD>