

The Psychological Consequences of Disasters and Terrorism

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The Characteristics of Natural and/or “Traditional” Disasters

(ERDLC WMD-PIE)

Traditional/Natural Disasters

- Fire, floods, earthquakes, hurricanes/tsunami, mechanical failures, explosions, etc.
- Acts of Nature vs Acts of Human Error/Neglect

Shared Characteristics

- Well-defined Time Frame in Terms of Beginning and Ending
- Sensory Cues are Available
 - Where is the Danger?
 - Where is Safety?

THE CHARACTERISTICS OF TERRORIST AND/OR WMD EVENTS

(ERDLC WMD-PIE)

- ✓ CBRNE Categories
 - Chemical
 - Biological
 - Radiological
 - Nuclear
 - Explosive
- ✓ Intentional Criminal Acts Directed Towards Others
- ✓ MYSTERIOUS Agents
 - No Well-Defined Beginning or End
 - May Not Provide Routine Sensory Cues
- ✓ All of Which Creates a Different and Unique Emotional Charge Relative to a Natural or Traditional Disaster
- ✓ MYSTERY Produces FEAR

THE PSYCHOLOGY OF FEAR AND TRUST

- ✓ Fear and Trust (Safety) (ARBITTO, 1986) are Asymmetrical Processes Adaptive Survival Processes
 - FEAR: Rapidly Acquired, Slow to Extinguish, Easy to Re-establish
- ✓ Fear and Trust of Specific Events or Items vs Contextual or Environmental Elements
 - Extreme Cases on a Continuum
 - Similar to personal relationships

ADJUSTMENT REACTIONS AND FEAR

(SANDMAN, 2005)

- ✓ When someone first learns about a new and potentially serious risk, the natural, healthy, and useful reaction is, in a sense, an over-reaction:
- ✓ You pause.
- ✓ You become hyper-vigilant.
- ✓ You personalize the risk.
- ✓ You take extra precautions -- precautions that are probably unnecessary, or at least premature.

THE ADJUSTMENT REACTION TO CRISIS

- (SANDMAN, 2005)
- ✓ It is AUTOMATIC
 - ✓ It Comes EARLY
 - ✓ It is TEMPORARY
 - ✓ It is a Small OVER-REACTION
 - ✓ It May Need GUIDANCE
 - ✓ It Serves as a REHEARSAL
 - ✓ It Reduces Later OVER-REACTION
- ✓ Let it Happen!!
 - In fact, help them have a GOOD ONE
 - ✓ Do NOT:
 - “Fear Fear”
 - “Panic Panic”

“FEAR OF FEAR” AND “PANIC PANIC” REACTANCE

- ✓ Most people can cope and manage their fear
 - ✓ Panic is extremely rare yet panicky feelings are common
 - ✓ Most official reactions to terrorist attacks assume that neither are correct thus provoking unnecessary and unwise steps:
 - Withholding information
 - Over Assurance
- The overreaction by officials to the public’s adjustment reaction
 - Classic Examples
 - 1979 Three-Mile Island
 - Jack Herbine, Met-Ed
 - 2005 Katrina
 - Mike Brown, FEMA

- ✓ It is Arguable that a Major Goal of Terrorism is to Create Contextual Fear and to Eliminate Trust in the Various Critical Infrastructures Within Our Society
 - The Food Supply Chain as a Critical Infrastructure is a Robust Mechanism to Achieve this Goal
 - How To Counter this Threat Beyond Prevention?
 - Reduce the MYSTERY of the Agents Through Effective Risk and Crisis Communication and Management
 - Help Tolerate the MYSTERY/UNCERTAINTY We Cannot Yet Reduce Through Effective Risk and Crisis Communication and Management
 - Less Mystery Yields Less Fear Which Yields More Trust
- ✓ Katrina as a Unique Case to Study.....

The History and Implications of Food Terrorist Events

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Why Are We Vulnerable?

√ Bible

- 5th plague: murrain (cattle diseases)
- Against the Philistines: emerods (bubonic plague)

√ History of Warfare

- **1863** - siege of Vicksburg, Mississippi.
- **1937** - Japan dropped plague-infested fleas into grain supply storage facilities during their invasion of China
- **WWII** - Allied Forces experimented with biological agents intended to destroy Japan's rice sources and Germany's potato supplies

Contemporary Incidents

- ✓ **In 1952**, the Mau Mau killed 33 head of cattle at a Kenyan Mission station using African bush milk—a local plant toxin
- ✓ **In 1984**, 751 people became ill after members of a religious cult infected an Orgeon salad bar with salmonella
- ✓ **In 1989**, terrorists phoned the U.S. Embassy in Santiago and claimed to have laced all Chilean grapes with cyanide
- ✓ **In 1997**, Israeli settlers sprayed pesticides on grapevines in two Palestinian villages, destroying 17,000 metric tons of grapes.

Since September 11, 2001

- ✓ **Fall 2002:** A competitor of a restaurateur in China added a chemical compound to his competitor's food and killed dozens of people and sent hundreds more to hospitals
- ✓ **Fall 2002:** Three individuals were arrested in Jerusalem for allegedly planning to carry out a mass poisoning of Israeli patrons at a local café
- ✓ **January 2003:** Several individuals were arrested in Britain for plotting to add ricin to the food supply on a British military base.

Impact on Human Health

- ✓ **1993:** Jack in the Box Incident. Three children died and over 600 people became ill with E. coli O157:H7 infection from under cooked hamburgers.
- ✓ **1994:** An outbreak of S. Enteritidis infection from contaminated pasteurized liquid ice-cream that was transported as a pre-mix in tanker trucks caused illness in 224, 000 people in 41 states in the USA.
- ✓ **1996:** 8,000 children in Japan became ill with E. coli O157:H7 infection from contaminated radish sprouts served in school lunches.
- ✓ **2004:** The outbreak of hepatitis traced to green onions imported from Mexico and served at a popular chain restaurant resulted in 3 deaths, hundreds of illnesses, and the inoculation of over 9,000 individuals by the Pennsylvania Department of Health

Vulnerability of our Food Supply

- √ Exposed crops
- √ High concentrations of livestock and poultry
- √ Food production, processing, and distribution facilities
- √ Imported foods from a complex and global supply chain

Strategic Vulnerabilities

- ✓ The relative ease of obtaining crop and animal pathogens
- ✓ The relative ease of mass contamination that can yield huge consequences with minimal effort
- ✓ Relatively low risk for the perpetrators of being detected, caught, or accidentally contaminated
- ✓ Substantial Economic and Psychological Impact

New Laws and Regulations

- ✓ Registration of Food Facilities
- ✓ Prior notice of Imported Food Shipments
- ✓ Administrative Detention
- ✓ Maintenance and Inspection of Records for Foods
- ✓ Training and Awareness Programs

Terrorist Acts Directed Towards the Food Supply

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Terrorism and Food



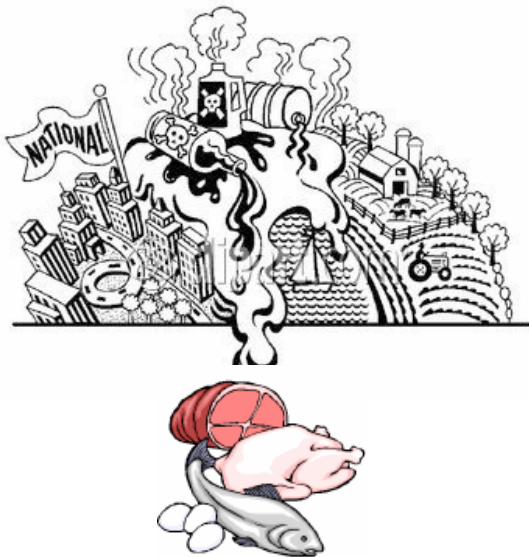
√ *Terrorism* is defined broadly as the unlawful use or threatened use of force or violence by a person or an organized group against people or property with the intention of intimidating or coercing societies or governments, often for ideological or political reasons.

√ *Food* seems to be a logical delivery mechanism for chemical / biological agents used by the terrorists to target large numbers of people. After all, everyone has to eat.

"For the life of me, I cannot understand why the terrorists have not attacked our food supply because it is so easy to do."



Tommy Thompson, Former HHS Secretary
December 3, 2004



Food Terrorism DEFINED

An act or threat of *deliberate contamination of food* for human consumption with physical, chemical, biological or radio-nuclear agents for the purpose of causing injury or death to civilian population and/or disrupting social, economic or political stability.

Who Are the Threats

The perpetrators range from the *obvious*:



- Criminals
- Subversives (Political Ideologists)
- Terrorists

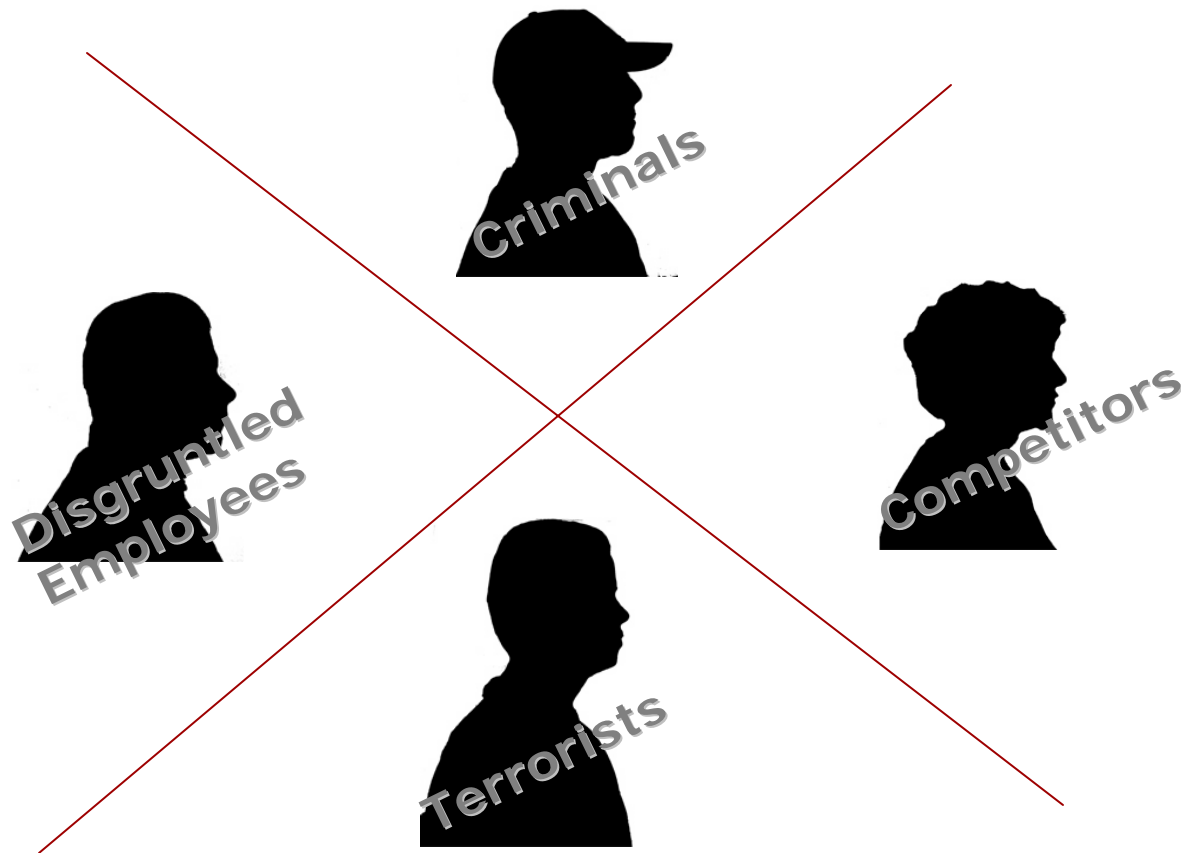
To the *not so obvious*:



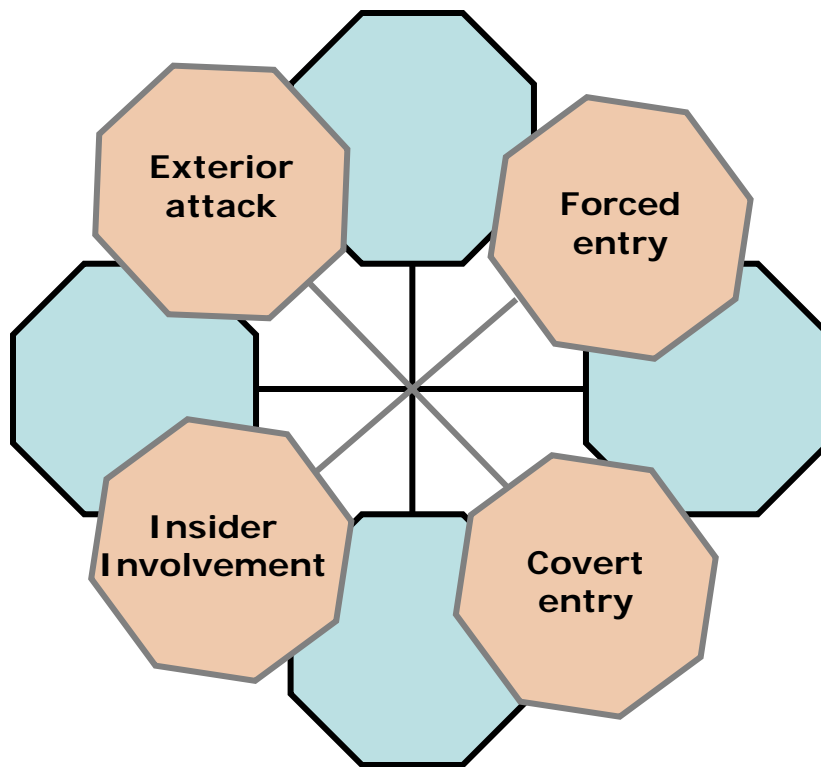
- Disgruntled employees
- Competitor



Case Examples



Food Terrorism Tactics

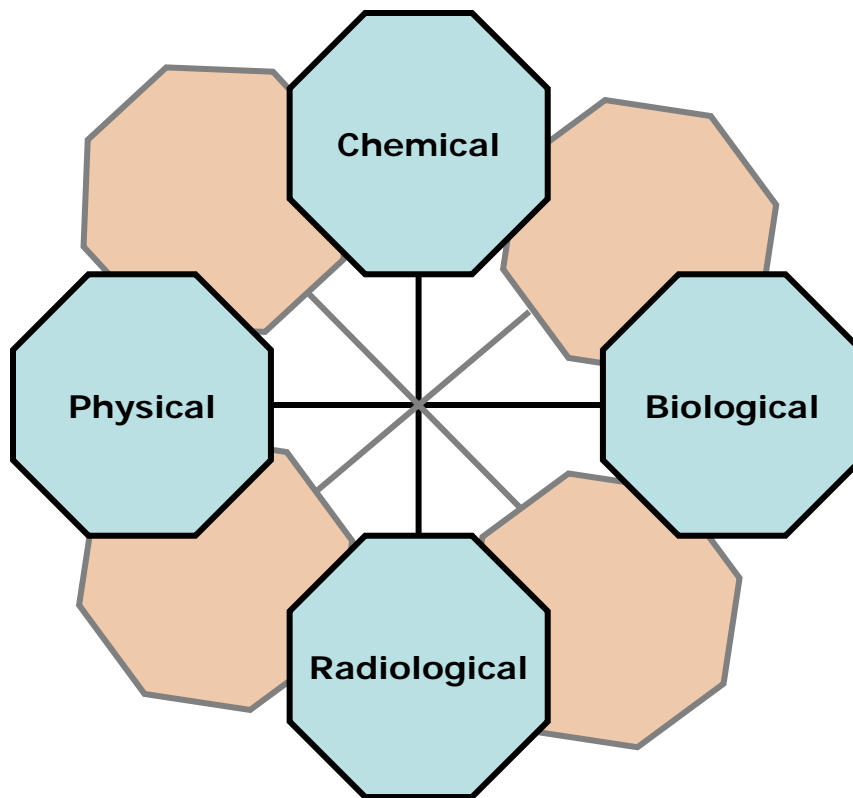


Tactics are planned methods used to contaminate food supply.

The following is a list of tactics that terrorists may use:

- ✓Exterior attack
- ✓Forced entry
- ✓Covert entry
- ✓Insider involvement

Food Terrorism Agents



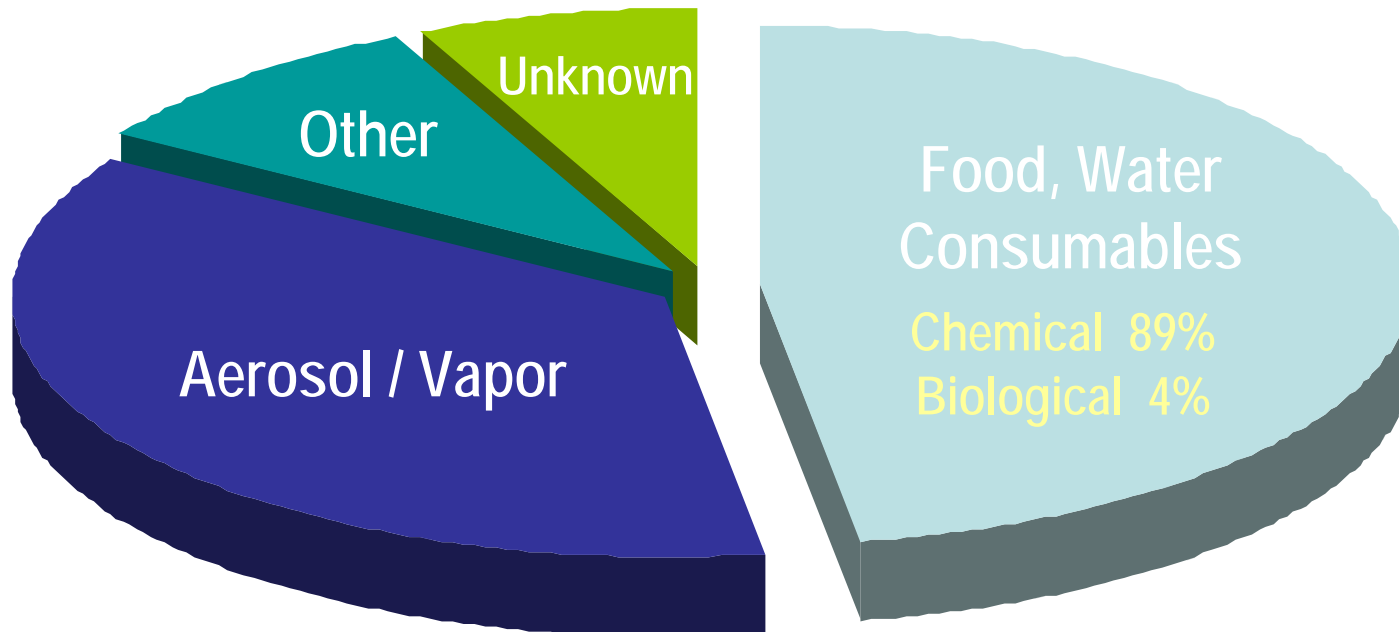
Agents are the type of contaminant used in the act of terrorism. They typically include:

- √Chemical Agents
- √Biological Agents
- √Radiological Agents
- √Physical Agents

These agents can be distributed via:

- √Air
- √Water
- √Food
- √Environmental Contamination

Analysis of 233 Past Incidents of WMD Terrorism Identifies the Top Four Means of Delivery:



Harvey J. McGeorge, *Weaponization and Delivery of Chemical and Biological Agents: A Terrorism Perspective*. Proceedings, Chemical and Biological Medical Treatment Symposia, Dubrovnik, Croatia, April, 2001

Thank You

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