Managing the Problem of Mass Murder

David Hillshafer
Foreword

My interest in the topic:

On April 19, 1995, I was in middle school in Oklahoma City, and I heard the blast that killed 168 people, including 19 children.

Since then, we have all endured the news of Columbine, Virginia Tech, Fort Hood, Tucson, Aurora, Sandy Hook, the Boston Marathon, ...

Each time people ask, “Why did this happen and what can we do about it?”

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Problem Space

- Case Studies
- Case Study From The Perspective Of The Victim
- Statistics Of Mass Murderers
- Barriers To Successful Prevention And Treatment Of Mental Disorders
- Findings, Gaps, and Shortfalls
Some of the Case Studies

Charles Whitman
University of Texas
Tower, Texas

Tim McVeigh
Oklahoma City
Bombing, Oklahoma

Eric Harris and
Dylan Klebold
Columbine High
School, Colorado

Sung Hui Cho
Virginia Tech, Virginia

Jared Loughner
Shooting of
Congresswoman Giffords, Arizona

Byran Uyesugi
Xerox Shooting,
Hawaii

Major Nidal Hassan
Fort Hood, Texas

Dylan Quick
CyFair College,
Texas

Ted Kaczynski
Unabomber

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Victim Case Study

- Slow, confused initial response
- Over-reaction after situation was under control
- Wrong initial reports contributing to tension
- Persistent tension
- No recovery strategy
- No self-recognition of stress and defensive behavior
- Need for individuals to tell story to relax
- Defensive leadership
General Profile of MM

- Primarily a single attacker (98.6%), average age 34.4
- 90% were men, 6% were women, and 3% were unsolved
  - Note: This is consistent with general homicide ratios
- 38% of the attackers were related to at least one victim

![Graph showing age distribution of perpetrators](image)
Time of the Attack

Incident Rate by Month

Incident Rate by Day of the Week

Recommend using downtime for training and administrative overhead. Conversely, recommend against scheduling overhead during high activity periods.

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U.S. State of the Attack

Are states with zero or very few attacks safer than other states?

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State difference are due to random chance. Education and Mental Health spending had no effect on the likelihood of a mass murder incident.
Location of the Attack

- Location related to age and sex of the attacker
  - Analysis: School age tended to target school, people with a family at home tended to target their family, people with a job tended to target their workplace, people who were out of school but did not have a job or family tended to target other people's homes and public places.
  - Note: Of female attackers – 1 Workplace; remainder (96%) attacked own family; Most in their 40s

Conclusion: A person who commits mass murder selects the location of the attack based on line of sight, often killing family members.

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Victims and Weapons

• **Victims per Incident**
  - Avg Killed: 9.0 people
  - Avg Injured: 9.6 people (Excludes attacker)

• **Weapons**
  - Most Common Weapons: *Firearm, Melee, and Arson*
  - Results indicate that in real-world mass shootings, semi-automatic weapons were no more or less deadly than other guns, but they did result in more injuries.

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Outcomes of Attackers

- Suicide at the Scene, 38%
- Executed, 5.0%
- Mentally Unfit for Trial or NGRI, 3%
- Half die at the scene of the crime.
- Killed by Cop, 11%
- Killed by Bystanders, 1%
- Life in Prison, 34%
- Other, 5.2%
- Less than Life in Prison (avg 29 years), 2.8%
Familicide & MM Outcomes

Null Hypothesis: In a mass-murder attack, killing a family member is not related to suicide at the end of the attack, and the recorded differences (shown above) were the result of random chance. From Z-Test, P-Value = 0.0057%. REJECT $H_0$. 

P-Value 99.9943% Significant
Motivation of the Attacker

- Delusion of Persecution
  - Whites perceive threat to conservative ideals
    - Government infringement on gun rights (ex. McVeigh)
    - Availability of abortion (ex. Rudolph)
    - Women in power (ex. Loughner)
    - Technology (ex. Kaczynski)
  - Minorities (falsely) perceive racism
    - (ex. Vang) (ex. Uyesugi, Hassan)
  - Note: Cho mentioned hedonism and not racism = conservative

- Obsession with mass murder
  - Obsession with prior mass murder incident(s) (ex. Harris, Cho, Hassan, Lanza, Quick)
  - Obsession fits with behaviors like writing a manifesto (ex. Kaczynski) or a play (ex. Cho)
  - Obsession fits with being found guilty in court of willful and premeditated murder
    - Even if the perpetrator was also psychotic (ex. Loughner)
  - Attack may be a compulsive act
  - DSM-5 – OCD frequently suffer from psychosis, anxiety, depression, suicide, all common mass murderer traits

- Diagnosis of another major mental disorder
  - Autism (ex. Lanza)
  - Selective Mutism (ex. Cho)
  - Schizophrenia (ex. Loughner)

Why would someone destroy their life, their family members' lives, and the lives of random bystanders unless they were motivated by something irrational?
Community Size

• In small, traditional communities, everyone knows practically everything about everyone else.
  o Respect, but no privacy
  o When someone has a serious mental disorder, everyone in the community talks, and they manage the disorder as a community effort.

• In large communities, people interact anonymously
  o Ex. I don’t know my neighbors’ names
  o For mental disorders, laws often discourage sharing information to protect the patient’s rights. Ex. HIPAA

• Lack of adequate information sharing was a major factor in all of the cases examined.
  o Ex. Sung Hui Cho – teachers did not talk to one another; parents did not know and had no power; the judge had no information when he required outpatient treatment instead of forced hospitalization.

Large communities suffer from systemic breakdown in communication.

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Need for Independent Assessment

- After aircraft crash, Air Force conducts
  - Accident Investigation Board – determine legal guilt
  - Safety Investigation Board – determine public safety information

- Governor of Virginia established independent assessment after Virginia Tech
  http://www.governor.virginia.gov/tempcontent/techpanelreport.cfm

- In the interest of public safety, the Department of Health and Human Services, the Department of Homeland Security, and the Department of Justice should establish a joint panel to independently investigate each mass murder incident and disseminate findings and recommendations appropriately
Risk Factors for MM

• Male
• Age of 20 to 50 (average 34) years old
• Experiences a period of mental decline over a year or more due to:
  o Diagnosis of a major mental disorder before attack
  o Diagnosis of schizophrenia (in some cases, typically after the fact)
  o Brain tumor on hypothalamus pressing against the amygdala (in one case)
  o Drug abuse (in some cases)
• Delusions (especially persecutory type)
  o If the perpetrator was a minority, then he often perceived false discrimination
  o If the perpetrator was not a minority (white), then he often perceived that he was fighting to preserve or restore a culturally ideal state
  o Some of the perpetrators expressed grand visions of fame (or infamy) or leading others to an idealized state
• Obsessing on mass murder, beginning as early as puberty, and as a result
  o Obsessing about one’s own attack
  o Speaking about or acting out his or her fantasy attack (perhaps compulsively)
  o Preparing for an attack days, weeks, or months in advance (perhaps compulsively)
• Worsening performance at home, school, or work, including:
  o Inability to adequately manage basic self-care
  o Social problems and isolation
  o Poor impulse control
  o Aggressive outbursts, emotional unpredictability, or emotional flatness
  o Signs of depression
  o Suicidal thoughts and actions (ex. self photos holding a gun to the head)
  o Unsuccessful attempts to get help (in some cases)
• As the person’s mental health declined, others recognized that something was not right. Unfortunately, they had no direct connection to the people with the ability to intervene, and so no one intervened. Additional legal hurdles, bureaucratic inefficiencies, and resource constraints also prevented the people with knowledge from connecting to the people with power, resulting in an inadequate or inappropriate response, intervention, or containment.
Gaps and Shortfalls

- A lack of ability for people with firsthand knowledge of an individual’s poor mental health, especially people with early stages of serious mental disorders, to pass that information to family members or caregivers, health service providers, and security managers and law enforcement.

- A lack of ability for legally authorized individuals operating on behalf of a public or private institution from accessing an individual’s mental health history.

- A lack of institutions to examine each individual’s mental health records and determine when a medical intervention is necessary.

- A lack of consistent, long-term care for individuals with mental health challenges.
Solution Space

• False Options
• Emergency Management Options
• Down-selecting Options
• System Design To Mitigate And Prevent Mass Murder
• System Changes To Prepare For, Respond To, And Recover From Mass Murder
• Stakeholder Analysis With Respect To New Technology
• System Requirements
• Measures Of The System
• System Testing, Deployment, And Operations
False Options

• "Only" two options:
  1. Law enforcement arrests everyone who is likely to commit mass murder in the nick of time
  2. We just accept mass murder

• Third option:
  o Serious mental problem that in some cases becomes a security problem.
  o Instead of waiting, intervene early to help individual and protect public
  o Note: While intervention is not cheap, the cost of mental health care is relatively inexpensive and is something we can do beforehand.

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Emergency Management

- **Mitigate**: Reduce contributing factors
- **Prevent**: Recognize risk factors and notify proper authorities. Once notified, authorities follow procedures to safely intervene before an incident occurs.
- **Prepare**: Organize, Train, and Equip for future incidents.
- **Respond**: During an incident, react quickly and effectively.
- **Recover**: Medical assistance for the injured. Psychological help for those mentally wounded, and cost to cover damages (physical and emotional).
## Mitigation Options #1

<table>
<thead>
<tr>
<th>#</th>
<th>Phase</th>
<th>Who</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>All</td>
<td>All</td>
<td>Status Quo - Do nothing and accept the situation as is.</td>
</tr>
<tr>
<td>1</td>
<td>Mitigate</td>
<td>Councilors &amp; Patients</td>
<td>Prevent and reduce physical and mental disorders from occurring. By analogy, safety procedures and gear (like looking both ways before crossing the street and wearing car seat-belts) prevent or minimize injuries from collisions. An example of “psychological safety gear” would be to teach impulse control, anger management, emotional resilience, and reality checks in health class. Promoting generally healthy lifestyles may sound silly, but in many of the case studies, the perpetrator was not overcome by a single aggravating factor, but by many little problems that added up over time. Learning and routinely practicing coping skills before the onset of a major psychological disorder probably will not transform a mass murderer into a fully healthy person, but it may reduce the level of harm they commit.</td>
</tr>
<tr>
<td>2</td>
<td>Mitigate</td>
<td>Health Care Providers</td>
<td>Other medical specialties have implemented yearly checkups, like physical exams and dental care, and this could be extended to yearly mental health checkups. The primary mental health care provider could act as a single point of contact to collect and disseminate information and advise others to act on that information through regulated medical channels. This includes informing social services and law enforcement when appropriate.</td>
</tr>
</tbody>
</table>
| 3 | Mitigate| Health Care Providers | Increase treatment for risk-factors for suicide:  
- Prevent and record any mental or physical health anomalies at any stage of life  
- Treat health issues earlier, more thoroughly, and for a more extended time  
- Provide counseling and support after the end of a long-term relationship  
- Treat a suicide attempt as both a potential indicator of another disorder and as a lifelong risk for a follow-on suicide attempt |
## Mitigation Options #2

<table>
<thead>
<tr>
<th>#</th>
<th>Phase</th>
<th>Who</th>
<th>Description</th>
</tr>
</thead>
</table>
| 4  | Mitigate | Joint Effort - Health Care Providers, Law Enforcement, Social Workers | For people at potentially elevated risk of hurting self or others, investigate and assess risk before a crime occurs based on the common risk factors, including:  
  • Anything listed in Appendix A  
  • Suicidal thoughts or actions  
  • Potentially Violent Mental Disorders  
    • Impulse Control and Conduct Disorders  
    • Obsessive Compulsive Disorder  
    • Psychotic Disorders  
    • Psychopathic Disorders  
  • Drug Abuse  
  • Gang or Cult Affiliation  
  • Disagreements that appear to escalate  
  • Slowly building anger, especially if inappropriate or counter-productive  
  • Obsession and self-identification with MM events, especially if he or she expresses a desire to repeat a past event |
| 5  | Mitigate | Justice Dept                                                          | If a judge must authorize involuntary treatment for a defendant, then  
  • Under a free will system of justice (current), the judge should ask, “If this person committed a crime today in their current mental condition, would a reasonable person find the defendant NGRI, reduce their sentence, or require psychological treatment while incarcerated?”  
    • If “Yes”, then the judge should authorize sufficient treatment to restore free will and sufficient containment to prevent unlawful acts without free will  
    • Note: This logic is convoluted, but consistent with current logic  
  • Under a public risk system of justice, the judge should ask, “Compared to a normal person, does this person pose an elevated risk to the public?”  
    • If the answer is “Yes” then the judge should authorize clinical and social measures needed to reduce the risk to the public to baseline levels. This may include involuntary commitment. |
## Mitigation Options #3

<table>
<thead>
<tr>
<th>#</th>
<th>Phase</th>
<th>Who</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Mitigate</td>
<td>Justice Dept</td>
<td>Prevent high-risk individuals from having access to materials that can be used in MM (guns, bomb materials, arson materials, poisons, swords, axes, baseball bats, aircraft, cars, and heavy machinery).</td>
</tr>
<tr>
<td>7</td>
<td>Mitigate</td>
<td>Gun Owners</td>
<td>Pay liability insurance on guns for wrongful death or injury similar to car insurance. Note: There are more guns than cars and fewer gun deaths than car deaths, so insurance is likely to be lower than car liability insurance.</td>
</tr>
<tr>
<td>8</td>
<td>Mitigate</td>
<td>Media</td>
<td>Media self-restricts reports to prevent inspiring and informing potential MM. By analogy, news reports of suicide tend to promote copycat suicide.</td>
</tr>
</tbody>
</table>
## Prevention Options

<table>
<thead>
<tr>
<th>#</th>
<th>Phase</th>
<th>Who</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Preven</td>
<td>Law Enforcement</td>
<td>Surveillance for Early Warning - Monitor (wire taps, location tracking, internet records, CC video) large groups of people to see a potential MM preparing to act.</td>
</tr>
<tr>
<td>1</td>
<td>Preven</td>
<td>TBD</td>
<td>Establish a hotline for a bystander to report a person acting in a way that is concerning. Hotline will connect to a control center that manages a database to track reports, create individual profiles, dispatch agents to investigate, distribute information to stakeholders, and intervene when sufficient evidence exists.</td>
</tr>
</tbody>
</table>
| 1  | Preven | TBD               | Intervene early using trusted third parties  
Ex. Cease Fire organization in Chicago as seen in “The Interrupters”  
Encourage and require treatment (depending on risk)  
Ex. Drug testing, rehab, anger management, impulse control management, obsessive compulsive management, argument de-escalation training, group therapy, anti-gang therapy, and psychiatric drugs |
| 1  | Preven | Law Enforcement   | Offer rewards for correctly reporting an incident in the planning stages.                                                                 |

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# Preparation Options

<table>
<thead>
<tr>
<th>#</th>
<th>Phase</th>
<th>Who</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prepare</td>
<td>Site Managers</td>
<td>Consider adding Security Alarms next to Fire Alarms for locations and situations where cell phone service may not be available.</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>• Consider adding cameras that take a picture of the alarm when pulled to catch and deter people who pull the alarm inappropriately.</td>
</tr>
<tr>
<td>1</td>
<td>Prepare</td>
<td>Site Managers</td>
<td>Put “dark” cell phone repeaters in large, public sites for surge capability (activated by Fire &amp; Security Alarms)</td>
</tr>
<tr>
<td>4</td>
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</tr>
<tr>
<td>1</td>
<td>Prepare</td>
<td>Site Managers</td>
<td>Show “Run. Hide. Fight.” Conduct “Active Shooter” drills. Note: this is already starting to occur.</td>
</tr>
<tr>
<td>5</td>
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</tr>
<tr>
<td>1</td>
<td>Prepare</td>
<td>Site Managers</td>
<td>Put traumatic wound first aid kits at large public sites.</td>
</tr>
<tr>
<td>6</td>
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</tbody>
</table>
# Response Options

<table>
<thead>
<tr>
<th></th>
<th>Phase</th>
<th>Who</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Respond</td>
<td>Law enforcement</td>
<td>Speed up Law Enforcement Response Times &amp; Procedures</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Note: this is already occurring.</td>
</tr>
<tr>
<td>2</td>
<td>Respond</td>
<td>Law enforcement</td>
<td>“Reverse 911” to get information to bystanders quickly</td>
</tr>
<tr>
<td>3</td>
<td>Respond</td>
<td>Law enforcement</td>
<td>Once the incident is over, rapidly release bystanders</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Note: bystanders are often kept on lockdown for hours, increasing trauma</td>
</tr>
<tr>
<td>4</td>
<td>Respond</td>
<td>FEMA (Prevent)</td>
<td>Have a nation-wide media handling team on standby to manage national media and prevent local officials from giving inappropriate statements to the media</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Rapidly debunk early false reports that occur at every incident</td>
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<td></td>
<td>• Discourage sensational reporting and media saturation</td>
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<td></td>
<td>Coach local officials on media Do’s and Don’ts before press events</td>
</tr>
</tbody>
</table>
### Recovery Options

<table>
<thead>
<tr>
<th>#</th>
<th>Phase</th>
<th>Who</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Recover</td>
<td>FEMA</td>
<td>Have a nation-wide “cleanup” team on standby to help site managers conduct recovery activities. (Note: site managers are rarely trained in MM cleanup, and are easily overwhelmed because they are also emotionally distressed by the MM incident.)</td>
</tr>
<tr>
<td>2</td>
<td>Recover</td>
<td>HHS</td>
<td>Provide in-person “listening stations” where affected persons can talk about their experiences</td>
</tr>
<tr>
<td>2</td>
<td>Recover (Prevent)</td>
<td>Justice Dept</td>
<td>Create civil liability for parents, teachers, bosses, classmates, coworkers, friends, ... who notice a person is acting in a concerning way but don’t say anything. Administratively discipline people in positions of authority who were notified of a high-risk individual but did nothing.</td>
</tr>
<tr>
<td>2</td>
<td>Recover</td>
<td>FEMA or Insurance</td>
<td>Pay victims up to $250k for death, $50k for injury, and $1k for distress. At 30 incidents per year w/ 9 killed and 9 wounded, expect $111M per year.</td>
</tr>
<tr>
<td>2</td>
<td>Recover</td>
<td>HHS</td>
<td>Establish independent panel to investigate MM cases from a neutral point of view.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>• Existing panels evaluate crimes in order to defend or convict in criminal court. This biases both the investigators and the people they interview.</td>
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<td></td>
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<td></td>
<td>Note: Air Force uses two separate panels for aircraft mishaps: an Aircraft Investigation Board to determine legal culpability and a separate Safety Investigation Board to determine what can be done better next time but cannot be used for judicial or administrative punishment. In real-world cases, people give different testimony to each board and each board often comes to a different conclusion.</td>
</tr>
<tr>
<td>2</td>
<td>Recover</td>
<td>Justice Dept</td>
<td>Eliminate Not Guilty by Reason of Insanity (NGRI)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Always determine guilt out of respect to victims</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• NGRI can be seen as “getting away with murder” to victims</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Either you did it or you didn’t do it</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If guilty,</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>• Determine degree to which mental disorder, drug addiction, gang-affiliation or other common risk factors played a role. If common risk factors are present, then sentencing should include mandatory treatment, which may be carried out at a psych ward or other treatment facility</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>• Transfer of custody from prison to a treatment facility should be based on space, staff, and funds available to avoid overcrowding treatment facilities as a way to offload overcrowded prisons.</td>
</tr>
</tbody>
</table>
# Scope of Control

<table>
<thead>
<tr>
<th>In Scope of Control</th>
<th>Out of Scope of Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profiling Past MM</td>
<td>Gun Laws</td>
</tr>
<tr>
<td>Concerned Bystanders (who are willing to talk)</td>
<td>Surveillance and Privacy Laws</td>
</tr>
<tr>
<td>Family/Friend Intervention</td>
<td>Employment Records</td>
</tr>
<tr>
<td>Media Engagement</td>
<td>Media Reporters</td>
</tr>
<tr>
<td></td>
<td>Funding Constraints</td>
</tr>
<tr>
<td></td>
<td>Medical Records (exceptions for public health)</td>
</tr>
<tr>
<td></td>
<td>Educational Records</td>
</tr>
<tr>
<td></td>
<td>“Sealed” Juvenile Records</td>
</tr>
<tr>
<td></td>
<td>Police Records</td>
</tr>
</tbody>
</table>

Based on this, options 2, 3, 5, 6, 7, 8, 9, 23, 24, and 26 were eliminated.
System Selection

• Considering the power of gossip networks in small communities, select options 10, 11, and maybe 4
  • Currently the government and private aid agencies operate hotlines for 911, suicide prevention, cults, and many other subjects with noticeable successes. A hotline also played a key role in capture of Ted Kaczynski.

• Develop a hotline where a bystander can report a person acting in a way that is concerning that leads to an intervention
  • Achievable within existing laws and funding constraints
  • People are likely to use it
Operational View

Multiple Possible Outcomes

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## Intervention & Long Term Care

<table>
<thead>
<tr>
<th>Self Admin of Care</th>
<th>Voluntary Family Involvement in Admin of Care</th>
<th>Social Services Involvement in Admin of Care</th>
<th>Involuntary Family Admin of Care</th>
<th>Involuntary Outpatient Hospital Care</th>
<th>Involuntary Inpatient Hospital Care</th>
<th>Prison or Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Grey" /></td>
</tr>
<tr>
<td>Healthy w/ Treatment</td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Grey" /></td>
</tr>
<tr>
<td>Disabling Mental Disorder</td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Grey" /></td>
</tr>
<tr>
<td>Self-Destructive Behavior</td>
<td><img src="#" alt="Grey" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Grey" /></td>
</tr>
<tr>
<td>Obsession w/ Violence or Suicide</td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Grey" /></td>
</tr>
<tr>
<td>Murder-Suicide/Mass Murder</td>
<td><img src="#" alt="Grey" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Grey" /></td>
</tr>
</tbody>
</table>
Hotline Case Study

Hotline for Unabomber Case:
- Connected people with firsthand knowledge to people with authority
- Informant recognized & reported similarities between family member & perpetrator
- Hotline participation benefited from nation-wide visibility
- Visibility & $1 M reward motivated false reports; checking required manpower, contributing to the total operating cost
- Informant motivated to protect public, not money. (Eliminates option 12.)
- Informant recognized his family member suffered from a serious mental disorder and wanted treatment, not imprisonment or execution
- Informant took steps at own expense to prevent false accusation, and used some of the reward money to reimburse those expenses.
- Informant wanted to keep involvement secret; leaking identity contributed to problems with other family members.
Hotline Lessons Learned

Based on Case Study, Hotline should

• Seek a high-level of public attention
• Inform the public of common risk factors and how to identify them in family members
• Keep identity of informants secret
• Intervene with the least forceful option that will work
• Provide no monetary reward but offer to reimburse legitimate expenses within limits
Response and Recovery

- The same hotline can be used during a crisis to send and receive information to directly affected individuals.
Response Lessons Applied

- Minimize stress response – largest source of long-term impact
- Emergency Response Information Coordinator – Manages flow of information during chaotic events and performs rumor control.
- Emergency Response Media Coordinator – Establish relationship with media, contact media when an incident occurs, and continue to be the primary media point of contact during and after the incident. In return, encourage reporters to confirm information through the Emergency Response Team before reporting them as fact.
- Emergency Response Incident Commander – Tells affected individuals what to do quickly
  - Note: giving bystanders the wrong information can be deadly, so all information must be thoroughly vetted.
- Once the situation is under control but before everyone leaves the premises, the Emergency Response Coordinator needs to find ways to help people calm down, and allow people to go to the bathroom.

Effective emergency response is critical during a crisis, and minimizing impact has exponential value after the crisis.
Recovery Lessons Applied

- Emergency Recovery Coordinator - Automatically implement organization-wide stand-down for a few days to allow people time to recover.
  - Site administrator (ex. the dean) should be immediately forced to take a few days off if they were present at the attack.
  - Emergency Recovery Coordinator must call in an administrator from another organization in the area as a temporary replacement. This way, organizational recovery does not depend on the psychological state of the person in charge.
- Emergency Recovery Coordinator - Continue to help people calm down days, weeks, and months later.
- Emergency Recovery Coordinator - Find ways to formalize and facilitate listening to people tell their story of the events. The goal should be that everyone has their story heard at least once within 24 hours (prefer) to 1 week (max). (See option 22.)
- After an attack, the Emergency Recovery Coordinator must be on the lookout for defensive behavior as a sign of continued stress.
- After the truth is determined, Emergency Recovery Coordinator needs to tell the story of what really happened in a public setting to set the story straight. Otherwise confusions will persist and grow, making the situation worse.
- Emergency Recovery Coordinator - Gather community and discuss lessons learned because to restore peoples' sense of control and promote better outcomes in the event of a repeat episode in future.

Actively managing community recovery can promote better outcomes faster.

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Stakeholder Analysis

• **Individuals**
  o Ex. Coaches, Community Service Leaders, Immediate Family, Extended Family, Classmates, Coworkers, Peers, Friends, and Patients
  o **Capacity** for additional technology requirements
    • **Negligible:** Cannot manage server requirements without assistance from a third party
  o **Recommend:** Third party remote servers store and process client data using common tools like standard web browsers or dedicated applications on a computer, smart phone, or tablet

• **Small Organizations**
  o Ex. Private Practices, Grade Schools, and Churches
  o **Capacity** for additional technology requirements
    • **Limited:** Can manage additional server software requirements, unless it requires expensive software licenses, training, or additional hardware
  o **Recommend:** Third party remote servers store and process client data using common tools like standard web browsers or dedicated applications on a computer, smart phone, or tablet

• **Large Organizations**
  o Ex. Hospitals, Universities, Participating Government Organizations
  o **Capacity** for additional technology requirements
    • **Able to grow:** Can add server software, hardware, and training by passing cost to customers
  o **Recommend:** Allow each organization to select either standard solution above or local servers to provide specialized or customized tools to organizational users and customers, including local data storage and processing.

Based on this analysis, technological efforts should be focused at the Large Organization level, or housed within a dedicated organization.
System Requirements

- **Availability** – The system must work 24/7.
- **Portability** – Data input into one digital service cannot be "locked into" that provider for any reason, including restrictive data formatting, software, or terms of use.
- **Authorized Data Sharing** – Because social isolation is a common feature of mass murderers and people with serious mental disorders, and preventing violence as a result of a mental disorder is in the interest of public safety, this system does not allow for total personal privacy or for a person "to be left alone" to the extreme of isolation. However, people do have a right to “do what they want” as long as it does not interfere with the ability of others to do as they wish.
- **User Retrievability and Auditability** – Any user can retrieve information that the user submitted to the system, or that the system automatically collected about the user as a result of the user’s actions.
- **Independent Auditability** – Independent auditors can easily verify the system is operating as expected.
- **Technologically Ready** – all system components must be commercially available.
- **Affordable** – the system, including development cost and worker pay, must be affordable within existing funding constraints.
- **Reliable** – the system must work right the first time and every time.
- **User-friendly** – the system must not frustrate users attempting to learn and use the system.
- **Secure** – the system must prevent unauthorized disclosures of information.
- **Balance** – the system must maintain a reasonable balance of usability and security, with lower levels of usability on public-facing applications and higher levels of security on administrative functions.
- **Administrable** – the system must be able to be administered with minimal training.
- **Continuous Improvement** – Regardless of initial or desired system metrics, all measures of effectiveness, suitability, and acceptability must remain constant or improve over time. Note: The measures will fluctuate from year to year because of randomness and small sample sizes, but the results should be steady over a five-year moving average.
Measures of Effectiveness

Measure the nation-wide number of:
- Mass murder incidents per 100,000 people (i.e. controlling for population size) per year
- People who are killed per mass murder incident
- People who are physically injured per mass murder incident
- People who are psychologically distressed per mass murder incident
- Press reports generated and number of readers/viewers/consumers per mass murder incident

Collateral Measurements. Measure the nation-wide number of:
- Murder-Suicide incidents per 100,000 people per year
- Suicides per 100,000 people per year
- Mental disorder diagnosis rates per 100,000 people per year
Measures of Suitability

Measure the system in an operational (or operationally representative) environment over the lifespan of the system for each of the following factors:

• Performance – For each system-level task that must be performed,
  o Duration to process a task from start to finish
  o Cost to process a task from start to finish
  o Number of tasks the user or system does not perform as expected or planned

• Reliability – When a user or the system does not perform as expected or planned,
  o Duration from when incorrect information or commands are input into the system until the information is removed or corrected
  o Cost to remove or correct incorrect information or commands
  o Number of incidents left in an incorrect configuration

• Availability – When a user wants to use the system, but the system is not ready for use,
  o Duration the user must wait until the system is ready to use (i.e. uptime)
  o Cost to restore system readiness
  o Number of times a user stops attempting to accomplish a task (i.e. gives up) as a result of inadequate system availability

• Maintainability – When performing regularly scheduled maintenance,
  o Duration to perform maintenance actions
  o Cost to perform maintenance actions
  o Number of times unscheduled maintenance must occur
Measures of Usability

Measure the system in an operational (or operationally representative) environment over the lifespan of the system for each of the following factors:

- Training – To train new users or retrain experienced users who have not used the system in a while (i.e. how simple is the user interface?)
- Standards and Evaluation – When asking personnel how a part of the system works,
- User Interface – When giving the system an input of any kind,
- Resolving User Issues – When a user needs help,
- User-Level Audits – When a user requests an authorized retrieval of information,
- User-Level Corrections – When a user requests an authorized change of incorrect information,
- Duration to open, process, and close request
- System-Level Audits – When an independent auditor attempts to verify the system is operating as expected,
- System-Level Corrections – When an auditor requests an authorized change of incorrect information,
Measures of Stability, Security, and Resilience

- Security best practices
- Software code and development best practices
- Network topology best practices
- System resilience and recovery best practices
SYSTEM TESTING, DEPLOYMENT, & OPS

1. Pick a single user community, like a university, hospital, or large corporate office, to deploy the system
2. Select a few users within the organization to test basic system components with to ensure the system operates as expected. Note: this also allows for more intensive early training and bug resolution.
3. Gradually increase the number of people using the system in the selected community based on training budget and ability to resolve deficiency reports.
4. Once complete, find a new community and repeat.
5. Standardize between different user communities to improve quality while driving down cost

- Note: hotlines can be purely local within the organization, or can be a single hotline to synergize results and ensure continuity.

- Note: system will not be tested or deployed to be all things to all people. Instead, it will be the best mental disorder intervention and emergency response and recovery center as it can be with the resources available.
Questions
Works Cited


● System Engineering, LMU

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