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THESIS

**EMPOWERING CHILDREN TO LEAD CHANGE:
INCORPORATING PREPAREDNESS CURRICULA IN THE
K-12 EDUCATIONAL SYSTEM**

by

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March 2009

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PREPAREDNESS CURRICULA IN THE K-12 EDUCATIONAL SYSTEM**

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ABSTRACT

A combination of both man-made and natural disasters in recent years has revitalized the concept of civil preparedness and defense in the United States. During the State of the Union Address in 2002, President George W. Bush announced the creation of the Department of Homeland Security (DHS) Citizen Corps, a component of the USA Freedom Corps initiative developed shortly after 9/11. Additionally, FEMA launched the “*Are You Ready?*” campaign to provide individuals, families and communities in-depth preparedness information and training, and the American Red Cross developed its own educational disaster preparedness program designed to coincide with the daily threat level. While the various programs include several common themes including special emphasis on disaster preparedness for children, they lack promotion, visibility, standardization and coordination. Empowering children to lead change by teaching families and other citizens is one possible methodology to enhance visibility and inspire participation in such programs. This thesis explores pros and cons of historical and current citizen preparedness campaigns and K-12 preparedness curriculums, other country approaches to citizen preparedness, elements of successful preparedness programs, Homeland Security stakeholder benefits, potential arguments against implementation, and provides criteria for successful K-12 curricula.

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I. INTRODUCTION

A. PROBLEM

Beginning with World War I, the United States initiated a series of citizen defense and preparedness programs designed to mitigate potential harm to citizens from threats such as nuclear attack, and to leverage citizens' skills as an important force multiplier. Historically, initiatives have been ad hoc in nature and addressed only the threat du jour, abruptly ending once the threat diminished to a manageable level or disappeared altogether. Since the terrorist attacks of September 11, 2001, and subsequent natural disasters including Hurricanes Katrina and Rita, citizen preparedness has been re-emphasized in the United States through presidential directives and national strategies, and centered on an all-hazards approach.

Homeland Security Presidential Directive 8 (HSPD-8), issued December 17, 2003, places responsibility on government agencies "to encourage active participation and involvement of private and non-governmental entities and citizens in national preparedness wherever possible" (U.S. Department of Homeland Security, 2005). While ongoing initiatives such as the Citizen Corps, Ready.gov, FEMA, American Red Cross, and state and local programs were designed to increase citizen preparedness, data suggest that participation is low and that citizens remain unclear as to how they can contribute. Insufficient participation can be attributed to two factors. First, initiatives lack standardization, coordination, and training, thus creating ambiguity in the preparedness message and confusion as to citizen participation expectations. Second, initiatives lack the visibility and promotion necessary to inspire citizen involvement.

An examination of historical and current citizen preparedness initiatives, as well as survey data, suggests that despite compelling arguments for citizen involvement in preparedness efforts, and while Americans have maintained a high sense of civic duty throughout history, actual citizen preparedness efforts remain minimal. In an effort to close this critical gap, Homeland Security stakeholders must explore known successful methods for stimulating citizen involvement and must develop a strategy capable of

achieving life-long sustainability. A comparison of U.S. preparedness initiatives with those of other countries and other successful citizen-targeted campaigns suggests that education of citizens at a young age may be the critical link to a better-prepared America. Introducing preparedness curricula in the K-12 educational system is one possible method for increasing involvement by the public, and could enable us to increase available human resources while reducing the number of potential victims in mass disasters. Moreover, by starting with our children, a cadre of future homeland security leaders may be born.

B. RESEARCH QUESTION

This thesis explores the pros and cons of historical and current citizen preparedness campaigns in an effort to identify the ingredients necessary for stimulating citizen involvement, including K-12 preparedness curricula, approaches to citizen preparedness in other countries, and elements of successful long-term initiatives. The primary research questions to be answered are the following.

- Can citizen preparedness be stimulated by incorporating homeland security preparedness curricula into the K-12 educational system?
- Are there psychological risks associated with exposing children to scary topics such as terrorism and mass disaster?

C. SIGNIFICANCE OF RESEARCH

This thesis examines historical events, the preparedness roles played by citizens during those events, and reasons why programs have been discontinued. It also explores current preparedness programs and initiatives in other countries, and compares those initiatives to known successful programs. This thesis provides compelling arguments for implementing preparedness programs in the K-12 educational system, and examines the ingredients needed for a successful program. Most importantly, this thesis provides specific recommendations for homeland security stakeholders so that they will have the information needed for successful curricula development if future programs are considered.

D. LITERATURE REVIEW

During the State of the Union Address in 2002, President George W. Bush announced the creation of the Department of Homeland Security (DHS) Citizen Corps, a component of the USA Freedom Corps initiative developed shortly after 9/11. Numerous events were launched “to improve preparedness in homes, schools, workplaces, and places of worship and to educate all Americans on local alerts and warning systems, evacuation routes, shelter locations, and the fundamentals of emergency preparedness and basic first aid” (U.S. Department of Homeland Security, 2007). Had preparedness initiatives been limited to Citizens Corps and USA Freedom Corps, the programs may have been successful. However, in addition to these programs, FEMA launched the “Are You Ready?” campaign to provide individuals, families, and communities with in-depth preparedness information and training, and the American Red Cross developed its own educational disaster preparedness program designed to coincide with the daily threat level.

While the various programs include several common themes, including special emphasis on disaster preparedness for children, they lack promotion, visibility, standardization, and the coordination necessary to engage citizens. Numerous statistical reports provide evidence of the lack of preparedness. They indicate that most citizens are not engaged in preparedness, nor are they taking the initiative to safeguard their own health and safety. The Wirthlin Report dated December 2004 states, “While the public is more aware of the need for preparation today than before September 11th and realizes a catastrophic disaster is more possible today than once thought, they nevertheless remain largely unprepared” (Wirthlin Worldwide, December 2004).

According to a Wirthlin Worldwide study conducted June 4-7, 2004, “only one in ten U.S. households are truly prepared when it comes to following all three guidelines set by the American Red Cross: making a disaster plan, building a disaster supply kit, and getting trained to respond to an emergency.” Wirthlin concludes that many barriers to disaster preparation can be overcome by educating people about where to turn for information and by making preparation easier (Wirthlin Worldwide, June 2004).

Likewise, a Gallup Poll found that “41% of people do not have a stockpile of food and water, and 27% do not have an extra supply of medicines, both of which the Federal Emergency Management Agency says are basic disaster preparations. About 40% have not picked a person for their family to contact in the event of a disaster and 18% do not have a first aid kit” (Macro International, Inc., 2007).

The statistics regarding current programs are wholly consistent with findings regarding historical programs. A study published in the *Journal of International Affairs* (Redlener & Berman, 2006) suggests that despite the millions of civil defense volunteers between World War I and the post Cold War era, “the U.S. public has consistently reported itself as unprepared” (Redlener & Berman, 2006). The authors further suggest that throughout history, “the U.S. public has remained generally disinterested in the notion of personal disaster preparedness.” This conclusion was further validated by a 2007 Red Cross survey that showed that 93% of Americans were not prepared for a major disaster (Shabazz, 2008).

A significant amount of literature exists on preparedness programs that have been tried over the years, outlining the successes and failures of each. In general, research suggests that the ad hoc nature of these programs ultimately led to their demise. As the threat of nuclear war waned, so did the citizen preparedness campaigns. Fallout shelters were turned into wine or fruit cellars, and foodstuffs were discarded. By the early 1970s, citizens had lived through decades of reactive campaigns addressing only the threat at hand—victory gardens to offset food rationing, fallout shelters to protect citizens from nuclear attack. Once the threat was gone, so was the campaign. While most researchers argue that Cold War civil defense programs were merely further examples of ad hoc initiatives contributing to preparedness apathy, authors such as Amanda Dory and Jo Anne Brown (Dory and Brown, 2003) still cite Cold War civil defense programs as examples of best practices and lessons learned.

A wide array of literature also exists on preparedness initiatives in other countries, including, but not limited to, Israel, Canada, Australia, Germany and the United Kingdom. In their analysis of models outside the United States, researchers included variables such as the threat faced by that country and the means by which initiatives are

carried out—mandate versus volunteerism. While these programs may not be effective in the United States in their entirety, some features of each program may provide the necessary ingredients for success. For example, under the Israeli model, the Home Front Command is the single authority responsible for preparing citizens for disaster, unlike our multi-agency approach. The Home Front Command has a television station devoted to disaster alerts so that in the event of a situation, citizens know to turn to one station for directions from an authority figure. In the United States, citizens rely on multiple media sources for directions, and some are inconsistent with others. While the daily threat in the United States clearly pales in comparison with the threat faced by Israel; such that it may not be necessary for the United States to implement all aspects of the Israeli model, the practice of having one media station dedicated to public service messages could provide the visibility and continuity currently lacking in U.S. preparedness programs.

The research for this thesis suggests that by incorporating mandatory preparedness curricula into the K-12 educational system, long-term success can be realized. Instilling preparedness as a core value in children beginning at a young age when political bias has yet to be fully developed, coupled with a child's ability to broker the preparedness message, may ensure that our future generations view preparedness as a fact of life rather than as an ad hoc exercise. While some may argue that children lack the mental capacity to be charged with such responsibility, today's environment is filled with examples of the realization that children are not only capable of helping and encouraging others, but have taught and continue to teach adults valuable skills. Literature and other media such as cartoons and television advertisements are full of examples, including quotes about using children to teach adults, and pictures and advertisements depicting children teaching modern technology to adults.

Studies on the effects of exposing children to disturbing topics such as natural disaster and terrorism have been conducted for several decades. The findings of these studies vary from "no lasting effects" to "significant stress," depending on whether the children had been exposed to catastrophic events previously, how much media they were exposed to, and the reaction of their parents. According to the National Academy of Sciences, "Youth who have been exposed to violence have been more likely to develop

psychological problems and have poor functioning at home and school” (National Academy of Sciences, 2003a, p. 106). However, preparation can be critical in helping to “decrease the physical, psychological, social, and economic disruptions caused by terrorism events” (National Academy of Sciences, 2003b, p. 34).

II. U.S. CITIZEN PREPAREDNESS

One of the most compelling things about being the President is I get to see on a daily basis the true compassion of our fellow citizens.

-- President George W. Bush

A. CURRENT STATE

Throughout history, U.S. citizens have taken an active role in civil preparedness and defense. From planting victory gardens and bomb shelters during World War I (WWI) and World War II (WWII) to practicing “duck and cover” techniques during the Cold War, citizens were actively engaged. The rolling cycles of American civil defense continued after the attacks of September 11, 2001, evidenced by the government’s emphasis on homeland security initiatives as a means for improving “preparedness in homes, schools, workplaces, and places of worship and to educate all Americans on local alerts and warning systems, evacuation routes, shelter locations, and the fundamentals of emergency preparedness and basic first aid” (U.S. Department of Homeland Security, 2007). Despite our recognition of the critical role, the public plays in homeland security and the importance of an informed and prepared citizenry, current initiatives lack the promotion, visibility, standardization, and coordination necessary to engage citizens.

Empowering children to lead change is one possible method for enhancing program visibility. A comparison of U.S. citizen preparedness initiatives from the beginning of WWI with those of other countries and other successful citizen-targeted campaigns can provide homeland security leadership with the formula necessary to create a better prepared America. Additionally, program comparisons provide evidence of how children can inspire the adult population, the most important ingredient for stimulating program involvement.

B. HISTORICAL PREPAREDNESS PROGRAMS

1. World War I

World War I was the beginning of the modern era of civil defense, both worldwide and in the United States. On August 29, 1916, President Woodrow Wilson established the Council of National Defense, because, in his words, “The Country is best prepared for war when thoroughly prepared for peace” (*New York Times*, 1916). Civil defense had its legal base in the United States Army Appropriation Act, which designated the Secretary of War responsible for civil defense activities (Suburban Emergency Management Project, 2005). Citizens were taught to guard secrets, to plant victory gardens in the name of patriotism (Image 1), and to remain vigilant to enemy threats (Hubbard, n.d.). Despite the fact that the United States was never seriously threatened with a catastrophic direct attack, civilian interest in civil defense was nevertheless substantial. Many experts believe that the media, in part, may have contributed to the widespread response as incidents involving sabotage were prominently displayed, thus creating the fear of internal subversion by German agents and sympathizers (Jordan, 1966).



Image 1

As a result of the overwhelming response, the Council encouraged the establishment of state and local defense councils patterned after the federal model (Suburban Emergency Management Project, 2005). By the end of the war, approximately 182,000 local units were functioning throughout the country, and nearly 80 percent of the counties were encompassed with women’s committees (Jordan, 1966). Despite recognition by the government of the importance of civil defense, all accomplishments were achieved by volunteers and without pressure from the government. While noteworthy, the lack of government demands also resulted in a failure of lasting impressions, as well as a lack of historical documentation. In an unpublished manuscript by Robert McElroy, Office of Civil Defense, that is quoted by Jordan (1966), McElroy stated:

Yet, with all this machinery, the Council of National Defense had made so little impression upon America's vast population that few of those who survive today can recall anything about it; and many fail to recall the fact that it existed. ... We have lately made an effort to repair that omission, however. As early as May 23, 1940, a serious attempt to discover the organization and activities of these State Councils and Defense as of June 1917 (sic). ... But the plans for these State Councils were so varied (sic) and the records they left so inadequate, that it was hard to draw any conclusions from them as examples. (Jordan, p. 33)

Children also had a role in civil defense during WWI. Specifically, schools taught American students how to ration and provided instructions for using ration cards at local stores (Images 2 and 3). Children were also involved in recycling, collecting scrap metal (Image 4), and planting victory gardens with their families. Posters by the U.S. government also spoke directly to children, as depicted in Images 5, 6, and 7. The greatest sacrifice? While enemy attack in the United States was not imminent, thousands of children were nevertheless forced to quit school to help support their families (Bos, n.d.).



Image 2

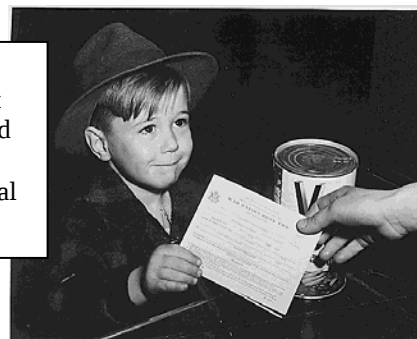


Image 3

Children were taught to ration and use ration cards at local stores.



Image 4

Left: WWI children collecting scrap metal and recycling

Below: WWI Posters
designed to address
children



Image 5

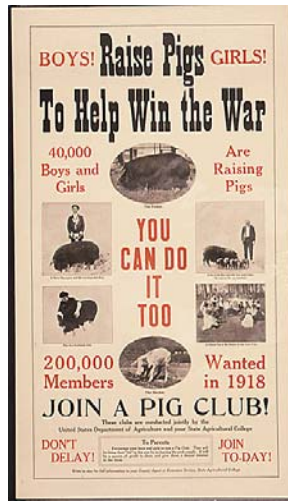


Image 6



Image 7

Studies about the psychological effects of WWI were limited to the affects on soldiers in combat and postwar problems and symptoms. No literature could be found specifically addressing the psychological impact on children and families resulting from involvement in preparedness efforts. This is not surprising given the observations by McElroy about the lack of published literature by state councils. However, later programs were assessed and provide the data necessary to formulate educated conclusions regarding programs for our future generations, as will be seen later in this thesis.

2. World War II

With the end of WWI in 1918, civil defense efforts went dormant; however, the foundation for modern day civil defense had been laid. While the December 7, 1941, Japanese attack on Pearl Harbor is commonly credited for the re-stimulation of civil defense, President Roosevelt, in fact, reactivated the Council of National Defense prior to the attack, enhancing its original mission by creating the Division of State and Local Cooperation (DSLCL) to assist with the mobilization of civilian resources for possible use in wartime. However, problems arose with the DSLCL's inability to deal directly with local governments. As a result, on May 20, 1941, President Roosevelt ordered the establishment of the Office of Civil Defense (OCD) within the Office of Emergency

Planning, charged with promoting protective measures, elevating national morale, and providing a means for local participation in the defense program (Bos, n.d.). New York City Mayor Fiorello La Guardia headed the OCD, emphasizing the protection aspects of the program, while First Lady Eleanor Roosevelt, assistant director of the voluntary participation, hired a professional dancer to “formulate and direct an OCD recreation program for children” (Kerr, 1983, p. 10).

The OCD trained citizens to fight fires, rescue people, and administer first aid, and the Civil Air Patrol taught citizens to keep their “eyes on the sky” (Image 8) for signs of enemy threats (Hubbard, n.d.). More notably, the Civil Defense Corps, a subunit of the OCD with 10 million volunteers, approximately 8,570,000 of whom had assigned duties, provided the following:



Image 8

1. **Communication:** A communication system for the entire corps, linking the War Department Warning Service to control centers maintained by the local defense councils who, in turn, forwarded the incoming messages to local radio stations and the block air raid wardens. Efforts for greater coordination were later realized as War Department information began to flow through regional- and state-level “war rooms.” However, as the end of the war approached, procedures had not been fully developed.
2. **Fire Fighting:** Noting that 80 to 90 percent of the damage in Great Britain was due to fire, the United States began training volunteers in emergency fire fighting. Also, local fire fighting organizations were provided additional gear in case of an emergency.
3. **Shelters:** The OCD issued instructions for the building of shelters and identifying or modifying existing structures so that they could be used as shelters. Under this same program, the Civil Defense Corps headed the rescue service, training members in first aid, tunneling, shoring, and other techniques necessary for recovering people or bodies from debris.
4. **Chemical Threat:** Fearing that the enemy may deploy gas strikes against civilians, training in decontamination and the use of gas masks was provided.

5. **Camouflage of Critical Infrastructure:** Instruction for camouflaging vital facilities was the responsibility of the Army, which provided training to volunteers of the corps.

6. **Restoration of Essential Services:** The Citizen's Defense Corps teamed up with appropriate authorities to provide training in the restoration of vital services including transportation, traffic control, communications, public safety, and police functions. Additionally, the Corps formed road repair crews, utility repair units, and demolition and clearing units.

7. **Evacuation and Care:** Primarily the responsibility of the federal government upon direction by the U.S. Army, teams of corps personnel were trained in evacuation procedures and the care of evacuees. (Suburban Emergency Management Project, 2005)

The limited amount of literature addressing preparedness programs for children during WWII generally emphasized the same programs that were seen during WWI. Of particular note, however, was a strong focus on child labor legislation and intervention. Specifically, initiatives were developed to encourage children to give up their jobs and return to school so they could learn “to be a better American citizen now and in the future.” In 1943, with a record number of children employed—their contribution to the war effort—the Children's Bureau partnered with the Department of Education and deployed the “Back-to-School” campaign, stressing the importance of education with the following message for children:

You'll make a better soldier if you go to school now. You'll make a better worker if you get your training now.

Your health and your strength are worth a great deal more to you and your Nation than any dollar you earn...

Sure it's fun to earn money, be able to buy things and pay for them from your own pocket ... but it will be as much fun later as it is now, and going to school and learning as much as you can now will help you hold down later a better job than you can hold down now.

You are proud ... that in our country so many young men and women are high-school and college graduates. (Hixson, 2003, p. 523)

As in the WWI era, studies regarding the potential psychological effects of exposing children to war and preparedness were likely never conducted, and no references could be found through Internet and library resources.

3. The Cold War

In September 1949, the Russians exploded their first fission nuclear device, and on August 12, 1953, tested their first hydrogen bomb (H-bomb) (*Time*, 1961). Four years later, Russia launched the world's first artificial satellite, known as Sputnik I, into space. And in 1962, the CIA produced intelligence identifying Soviet nuclear missile installations under construction on the island of Cuba, better known as the Cuban Missile Crisis. These events signaled the beginning of the nuclear stage of the Cold War, resulting in an intensive arms and space race. Fearing the worst-case scenario, countries took proactive measures to prepare for a potential nuclear attack. Air raid drills became part of everyday life for schoolchildren (Image 9), and fallout shelter construction was a common activity for states and for the general public. In 1950, President Truman organized the Federal Civil Defense Agency (FCDA), later known as the Federal Emergency Management Agency (FEMA), which distributed nuclear and radiation preparedness videos, survival after nuclear attack video clips, fallout shelter pamphlets, and informational coloring books to the American public. Families were instructed to stock fallout shelters with items similar to those found in today's disaster supply kits.



Image 9

Most notable was the FCDAs partnership with the film industry to develop the famous film, *Duck and Cover* (Mauer, 1951), which was shown in theaters and schools throughout the country. As explained on Wikipedia,

The film starts with an animated sequence, showing an anthropomorphic turtle walking down the road. A chorus sings the *Duck and Cover* theme:

There was a turtle by the name of Bert
 and Bert the turtle was very alert;
 when danger threatened him he never got hurt
 he knew just what to do...
 He ducked! [inhalation sound]
 And covered!
 Ducked! [inhalation sound]
 And covered! (male) He did what we all must learn to do (male) You
 (female) And you (male) And you (deeper male) And you!
 [bang, inhalation sound] Duck, and cover!' (Mauer, 1951)

While this goes on, Bert is attacked by an apparent suicide bomber, a monkey holding a string from which hangs a lit firecracker. Bert ducks into his shell in the nick of time, as the firecracker goes off and blows up both the monkey and the tree in which he is sitting. Bert, however, is shown perfectly safe, because he has ducked and covered. The film, which is about 10 minutes long, then switches to live footage, as a narrator explains what children should do “when you see the flash” of an atomic bomb. The movie goes on to suggest that by ducking down low in the event of a nuclear explosion, the children would be safer than they would be standing, and explains some basic survival tactics for nuclear war” (Wikipedia, n.d., Duck and Cover).



Image 10

In 1952, the state of Georgia created a civil defense manual and adopted the slogan “Preparation Prevents Panic.” The manual outlined how to drill students on duck and cover techniques and advocated, “the initiation of action or service projects deploying students in community groups and ingraining pro-civil defense behavior into all aspects of civic responsibility:

1. Helping pupils to become sensitive to and concerned about the need for civil defense, reaching all [students], not creating fear, integrating with the curriculum, and involving community groups.
2. Helping pupils to identify and select civil defense problems in the community; holding symposia on American defense; making field trips to an observation post or shelter; attending invited talks; studying world events; surveying community resources and safety equipment.

3. Helping pupils to work out solutions to problems in home and school sheltering; posting information on school shelters; giving first aid demonstrations and courses; involving parents in cleaning up the attic; preparing a directory of local resources.

4. Helping pupils to evaluate procedures by preparing a glossary of atomic terms; studying nuclear scientists; studying nuclear war prevention; fostering democratic leadership; presenting radio programs on living in the atomic age; arranging exhibits for public library, store, newspaper, etc. on civil defense problems. (Davis, 2007, p. 111)

Efforts to educate children on civil defense did not stop at films and periodic drills. Rather, the FCDA joined schools in building a civil defense curriculum (Ridgway, 1954), with Oregon leading the way by adding age-appropriate civil defense information into all grade levels as follows:

Kindergarten to Third Grade

Social Studies: Curricula included instruction on flashlight operation; turning off the stove, lights, and furnace in the event of an emergency; opening cans of food; and how to cover windows to reduce the velocity of flying debris and mitigate the effects of heat flash.

Science: Children learned about “peaceful applications” of nuclear energy, consistent with President Eisenhower’s Atoms for Peace initiative.

Health Education: Health Education included the study of nutrition and how to ensure safe food and water, accident prevention, basic first aid, air attack protocols, and the importance of cleanliness.

Math: Civil defense curricula also included simple arithmetic such as counting as part of their safety protocols and the use of oral arithmetic to pass the time.

Fourth Grade: Children in this age group learned about healthy eating, causes and prevention of disease, cleanliness, personal protection during nuclear attack, the importance of rumor control, and techniques for fire-proof housekeeping.

Fifth Grade: Topics covered during fifth grade turned to descriptions of weapons of mass destruction (WMD) warfare such as the composition and dispersal of nerve gas, nutrition under various chemical, biological, radiological, and nuclear (CBRN) war scenarios, bacteriology of biological warfare, and the importance of helping others during attack.

Sixth Grade: Sixth graders learned about the radiation contamination of food, the function of blood and circulation, keeping physically fit, and further instruction about helping others.

Middle School: Curricula included characteristics of fire, basic atomic physics, household safety, chemical laws in nutrition, dispelling myths that could potentially result in panic, guarding against biological warfare, and the relevance of respiration and physiology for chemical warfare.

High School:

Science: Civil defense courses focused on the behavior of living things and human body functions and structure.

Social Studies: High school social studies curricula concentrated on the ideologies leading to WWII and the Cold War.

Eleventh and Twelfth Grades: Eleventh graders learned advanced first aid techniques, American history, and world leadership as well as the role of chemistry and the atmosphere in everyday life. Finally, twelfth grade civil defense education refined topics taught to eleventh graders plus the chemistry of heat, the structure of matter, and international relations. (Davis, 2007, p. 111)

Civil defense curricula in other states including Louisiana, North Carolina, and Michigan covered a variety of additional topics including:

- Teamwork
- Moral values
- Ability to following directions
- Obeying the rules
- Accepting decisions
- Shelter development
- Constructing radio sets
- Food preservation

- Keeping a balanced diet
- Large-scale food service
- Water treatment during nuclear attack
- Individual food supplies (livestock; vegetables)
- Social and family problems
- Family togetherness
- Homemaking skills
- Safety
- Sanitation
- Care of the sick
- Child care and development
- Facing dangers realistically

Additionally, teachers encouraged students to share curriculum content at home with their families while Parent-Teacher Associations persuaded parents to take an active role in the implementation of K-12 preparedness curricula. While K-12 civil defense education was not mandated in schools, a study conducted by the Office of Education in 1952 revealed that 88.4 percent of secondary schools and “95 percent of 437 elementary schools sampled in cities within 50,000 or more population taught civil defense” (Davis, p. 114). Additionally, all schools stressed the significance of the home-school link evidenced by remarks documented during parent-teacher conferences:

Why not let your children teach you what they have learned in school about protective measures?

Let your children talk to you about their civil defense drills if they wish.
(Davis, p. 112)

Published goals and objectives clearly show that the responsibility of civil preparedness fell on schools nationwide. The objective was preparedness to prevent the shock effects of disaster. The goals were to organize themselves to act in event of emergencies and implement curricula to build competent citizens (Davis, p. 114). The statistics are also very clear—citizens as well as government officials believed that preparedness would result in preservation of life. A study conducted in Des Moines,

Iowa supported this position, finding a correlation between children and family preparedness. Specifically, “householders who declared they would go to a public shelter in case of emergency, and had a definite plan to do so, were more likely to have children under age fifteen in the household. Having even younger children increased the incidence... Apparently, having children was a motivator, whether out of parental concern for their offspring or children’s delivery of the civil defense message” (Davis, 2007, p. 113).

Also in the early 1950s, the “Alert America,” campaign was developed to encourage all citizens to recognize the urgency of participation in protecting their own

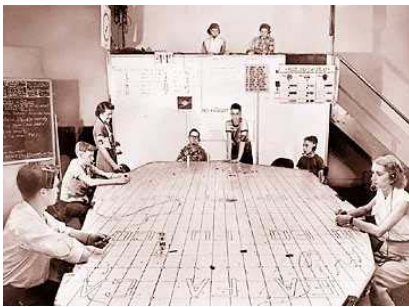


Image 11

cities and interests. “Boy Scouts were casualties and stretcher bearers in medical exercises, volunteered in the Ground Observation Corps (Image 11), cooked food for outdoor exercise participants, and Boy and Girl Scouts were message runners in command center exercises and conducted first aid demonstrations” (p. 27). By 1956, Boy Scouts had delivered a million civil defense posters, and in 1958, “nearly three million Boy Scouts were recruited to distribute Office of Civil Defense’s (OCD) new *Handbook for Emergencies* to thirty-seven million homes” (p. 27).

In 1958, a radiological defense high school program was developed by the Office of Civil Defense and Mobilization in cooperation with the Office of Education, state education departments, and state civil defense directors. The goal of the program was to “help high school students incorporate radiological defense education into their science courses, and improve the geographical distribution of radiation detection instruments” (Oak Ridge Associated Universities, 1999). The high schools received a CD V-755 kit along with instructions for use, a short video clip demonstrating use and lesson plans.

The possible negative psychological effects of introducing children to disaster preparedness training were not ignored. Rather, teachers monitored children’s mental health by encouraging students to write or draw about their fears. Additionally, children learned songs, stories, and games to ease their anxiety about nuclear bombs. British

researchers concluded that elementary age children were more likely to be excited than frightened during disaster; whereas, adolescents were more fearful—attributed to the fact that they were old enough to understand the dangers of an attack, but not able to do anything about it. Overall, the British found “that children under attack responded largely as the adults about them responded” (Ridgway, 1954). Accordingly, schools reminded parents that their attitude would largely determine the child’s attitude. If parents remain calm, children will be calm. If parents are sensible, children will be sensible” (Davis, p. 113).

4. Post Cold War Era

As the threat of nuclear war waned, so did the citizen preparedness campaigns. Fallout shelters were turned into wine or fruit cellars and foodstuffs were discarded. According to FEMA, “It wasn’t like one day we just woke up and said it’s over, but everything really is gone” (Davis, p. 113). By the early 1970s, apathy had set in and civil defense had nearly disappeared from the public minds. However, it returned in the 1980s when the Committee on the Present Danger spoke prominently of the Soviet threat, while the anti-nuclear movement and the reheating of the Cold War were on the forefront of American political agendas.

During this time, T. K. Jones, the Deputy Undersecretary of Defense and civil defense advocate asserted that “everybody” could survive a nuclear war “if there are enough shovels to go around,” and encouraged citizens to dig a hole, cover it with a couple of doors, and throw three feet of dirt on top (Hubbard, n.d.). Citizens, however, were skeptical. While Americans remained interested in civil duty and volunteerism, attempts to rally the public for atomic war were unsuccessful (Hubbard, n.d.).

5. Historical State of Readiness

A study published in the *Journal of International Affairs* in 2006 (Redlener & Berman, 2006) suggests that despite the millions of civil defense volunteers between World War I and the post Cold War era, “the U.S. public has consistently

reported itself as unprepared.” The authors further suggest that throughout history, “the U.S. public has remained generally disinterested in the notion of personal disaster preparedness.”

Gallup Poll #255, conducted December 1941, asked citizens to respond to a series of 40 questions regarding the war, the following directly related to civil defense (Gallup Organization, 1941):

- **Question #11a:** Have you given any thought to where you would go in case of an air raid?
- **Question #11b:** If yes, where?
- **Question #11c:** Do you think there is any chance that this city (town, neighborhood) will be bombed?
- **Question #11d:** How would you put out an incendiary bomb?
- **Question #13a:** Outside of your regular employment, are you doing work in the civilian defense program, such as air raid warning, first aid, and the like?
- **Question #13b:** If yes, have you been called on yet to do any work?
- **Question #13c:** If yes, have you received any special training yet?

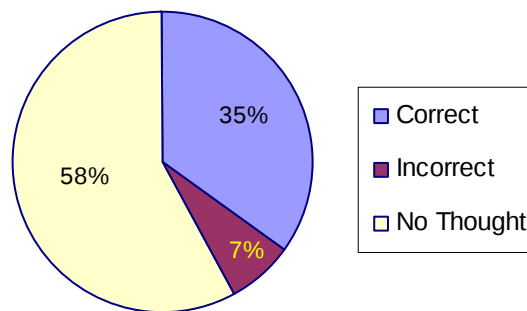


Figure 1. Gallup Poll #255 Question 11a Response

As shown in Figure 1, when asked if they had given any thought to where they would go in case of an air raid, only 35 percent provided a correct answer, and 58 percent responded that they had not given the question any thought. Likewise, when

asked if they were doing work in the civilian defense program outside of their regular employment, only 9 percent said they were, while another 9 percent said they were not, but had signed up for something (Figure 2) (Redlener & Berman, 2006).

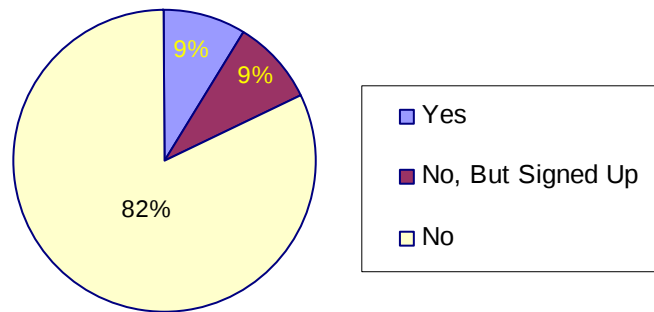


Figure 2. Gallup Poll #255 Question 13a Response

Three months later, in February 1942, the number of respondents who reported participating in civil defense programs increased to 23 percent, while 10 percent stated that they had not participated, but had signed up for a program (Redlener & Berman, 2006).

In 1943, statistics showed that more than two in five Americans were willing to help the war efforts, but believed the government had not gone far enough in asking people to make sacrifices for the war. However, when asked if they had made any “real sacrifice” for the war, only 2 percent responded that they had volunteered in some capacity (Redlener & Berman, 2006). Despite all efforts, clearly, citizens were not embracing the call to prepare.

This trend continued into the Cold War as evidenced by further Gallup Poll results. For example, in 1953, civil defense participation had plummeted 4.5 percent with only 3 percent stating that they had not participated, but had signed up for a program. And only 2 percent said they would build an air raid shelter within the next year (Gallup Organization, 1953). Likewise, in 1954, when asked how they would respond to a hypothetical war with the Soviet Union, only 6.5 percent stated that they

would follow directions by civil defense wardens, a mere 4 percent said they would participate in a civil defense duty, and nearly 19 percent said either they did not know what to do or would do nothing (Gallup Organization, 1954).

During 1960 when the nuclear arms race was at its height, merely 11 percent of the polled public had taken any action to prepare for a nuclear attack (Gallup Organization, 1960). While 71 percent were in favor of laws requiring communities to build public bomb shelters, citizens were not willing to alter their own home to protect against a nuclear weapons attack. In 1963, tensions were rising with Cuba causing 24 percent of polled Americans to rank the threat of world war as the second most critical issue (Communism was the first). Still, only 2 percent felt fallout shelters were the top priority, whereas 41 percent ranked shelters, both public and private, as the least important (Smith, 2002). Unsurprisingly, the numbers steadily declined as the 1970s, 1980s and 1990s approached.

While records may suggest that preparedness programs during the civil defense era were not optimal, the scope of the surveys conducted excluded several specific topic areas and age groups necessary to analyze the effectiveness or impact of K-12 preparedness programs. Specifically, no baseline polling data existed prior to the 1950s campaigns, either because it was not conducted or not published. Also, while much emphasis was placed on educating children in schools, children were not part of the polled community (Ridgway, 1954). Another possible explanation is the fact that after the end of WWII, *Hiroshima* (Hersey, 1946), an article in the *New Yorker* magazine which was reprinted in book form, was published which outlined in detail the dangers of nuclear attack. Prior to release of this book, citizens mainly relied on the government for information regarding nuclear war. After its release, however, citizens may have believed that no amount of preparedness would save them from such an attack, thus resulting in complacency.

As shown above, survey data gathered from the Cold War era did not specifically address citizen preparedness as it relates to emergency kits or family plans. Rather, the surveys focused on overall defense participation, bomb shelter construction, and home preparedness, making it difficult to conduct a direct comparison of Cold War citizen

preparedness and efforts today. However, several common themes exist which allow us to draw parallels between the two time frames. While poll data suggest that historical programs did not have the proper ingredients for robust citizen preparedness, the lack of complete data should be considered and program efforts not completely discredited.

C. CURRENT K-12 PREPAREDNESS PROGRAMS

Following the terrorist attacks on September 11, 2001, an overwhelming response by citizens volunteering to support first responders and America's efforts to secure the homeland was once again felt across the nation. Whether they offered to write a check, donate blood or items, devote time to victim assistance projects, search for survivors, feed the rescuers, or provide comfort to grieving families, citizen volunteers were ready, willing, and able. U.S. government officials recognized that in order to make our communities safer and our homeland more secure, the country must place greater emphasis on citizen preparedness. They further recognized that rather than the historical ad hoc approach, equal weight should be placed on all hazards, both natural and man-made, including acts of terrorism.

Accordingly, during the State of the Union Address in 2002, President George W. Bush announced the creation of the Department of Homeland Security (DHS) Citizen Corps, a component of the USA Freedom Corps initiative developed shortly after 9/11. Numerous events were launched "to improve preparedness in homes, schools, workplaces, and places of worship and to educate all Americans on local alerts and warning systems, evacuation routes, shelter locations, and the fundamentals of emergency preparedness and basic first aid" (U.S. Department of Homeland Security, 2007). Also under the Department of Homeland Security, FEMA launched the "*Are You Ready?*" campaign to provide individuals, families and communities with in-depth preparedness information and training. Likewise, the American Red Cross developed its own educational disaster preparedness program designed to introduce various levels of training commensurate with the Homeland Security Advisory System. FEMA, DHS Citizen Corp, and American Red Cross initiatives include several common themes, with special emphasis on disaster preparedness for children. While agencies initiated

programs with the best intentions, this multi-agency approach has led to mission inefficiencies that will be discussed later in this paper. For background, the following provides detailed information about each program:

1. The U.S. Department of Homeland Security Public Website: Family Preparedness

The DHS public website identifies three basic steps individuals and families should take to prepare for all disasters,



Family
Emergency Plan

including: 1) get a kit; 2) make a plan; and 3) be informed (U.S. Department of Homeland Security, n.d.). Suggested items for the kit include water, food, battery-powered or hand crank radio with extra



Emergency
Supply Kit

batteries, flashlight, first aid kit, etc. (U.S. Department of Homeland Security, n.d.). Instructions provided under *Make a Plan* recommend that before an emergency, family members together decide how they will get in contact with each other, where they will go, and what they will do in an emergency. The website includes a link to a *Family Emergency Plan* with fields for documenting names, locations, contact numbers and e-mail addresses for out-of-town contacts, neighborhood and regional meeting places, and evacuation locations. The form also includes fields for documenting personal information such as birthdates, social security numbers, medical and insurance information, and other similar items (U.S. Department of Homeland Security, n.d.). Lastly, under *Be Informed*, DHS stresses that there are differences among potential disasters that may require unique actions by citizens. As such, the website provides separate links to disaster preparedness information including biological threats, blackouts, chemical threats, earthquakes, explosions, extreme heat, fires, floods, hurricanes, influenza pandemic, mudslides, nuclear threat, radiation threat, thunderstorms, tornados, tsunamis, volcanoes, wildfires, and winter storms and extreme cold weather. Information includes instructions for preparedness and what to do during and after each specific disaster. Some of the links also include step-by-step visual guides (U.S. Department of Homeland Security, n.d.).

2. The U.S. Department of Homeland Security Public Website: Children Preparedness

The DHS website (U.S. Department of Homeland Security, n.d.) has a separate disaster preparedness forum for children entitled *Ready Kids*. *Ready Kids* uses animation and fun activities to teach children how to create a kit and make a plan, along with the facts about disasters, including tornadoes, earthquakes, fire emergencies, flooding, tsunamis, hurricanes, and terrorism.



DHS Ready Kids

Activities under *Create a Kit* include several games that challenge children to recall items suggested for emergency kits. A scavenger hunt is included that encourages building the kit via a family challenge to find such items. Step two of *Ready Kids* invites children to “make a plan” by discussing how to get in touch with your family during a disaster and completing a Just-in-Case plan similar to the adult plan, but created in color with the *Ready Kids* mountain lion theme. *Know the Facts* includes information about different types of disasters in terms that children can understand.



Create a Kit for Children

For additional information, each disaster contains a link to the FEMA for Children website that includes more games, cartoons, and videos. Finally, a link for parents and teachers includes further resources regarding emergency planning, coping, and psychological first aid. While this link is primarily for adults, it includes Ready Kids in-school materials developed by Scholastic, Inc., and Ready Kids activity books and stickers.

3. Federal Emergency Management Agency Website: Family Preparedness

Under the Are You Ready? campaign, FEMA released a new citizen-preparedness DVD titled, *Getting Ready for Disaster—One Family's Experience* (Federal Emergency Management Agency, n.d.,a). The DVD is designed to guide the viewer through disaster preparedness steps, similar to Ready America's "Make a Kit," "Make a Plan," "Get Informed." FEMA also published *Are You Ready? An In-depth Guide to Citizen Preparedness*, "a 200-page comprehensive guide that walks the reader through a step-by-step approach to getting informed about local emergency plans, how to identify hazards that effect their local area, and how to develop and maintain an emergency communications plan and disaster supply kit" (Citizen Corps, n.d.). Also available is the *Are You Ready Facilitator Guide*, a tool for those interested in presenting the material to small groups or classrooms.



Are You Ready?

4. Federal Emergency Management Agency Website: Children Preparedness

Similar to the DHS Ready Kids campaign, FEMA introduced the FEMA for Kids website, which allows children to learn about various disasters and offers a series of games and quizzes (Federal Emergency Management Agency, n.d.,b). FEMA includes a section on national security emergencies that talks about 9/11, defines terrorism, and discusses likely targets of terrorism. At the end of the first page, FEMA reminds kids that terrorism is a scary subject and before advancing to the next page, they must have permission from an adult. Later pages include specifics regarding explosions, chemical or biological attacks, radiological attacks, the Homeland Security Advisory System, information to help make you feel better, and a 9/11 slideshow (Federal Emergency Management Agency, n.d.). Kids can even get certified as a "Disaster Action Kid" by reading about disasters and



FEMA for Kids

completing an activity-based test. For younger children, FEMA for Kids offers an electronic disaster-coloring book, a series of games, and a forum where kids can post their own experiences.

5. DHS Citizen Corps Public Website: Family and Children Preparedness

The Citizen Corps website simply offers a compilation of emergency management materials, including FEMA's *Are You Ready?* guide, and links to various safety websites for children, including FEMA for Kids, Ready Kids, the DHS United States Fire Administration Kids' Page, the National Fire Protection Association for kids, National Oceanic and Atmospheric Administration fun and activities for children, Home Safety Council's website for kids, and the American Red Cross interactive zone. The website also offers links to training materials for parents and teachers, including Masters of Disaster, developed by the American Red Cross for children at the K-8 level, Risk Watch, an injury prevention program, and Save a Life for Kids Program, a simplified first aid training program for children ages 4 to 12 (Citizen Corps, n.d.,b).

6. American Red Cross Public Website: Family and Children Preparedness

Similar to efforts by DHS and FEMA, the American Red Cross offers materials regarding terrorism and disasters. The Red Cross website provides links to information such as a CD-ROM containing terrorism-related material; a brochure titled, *Terrorism,*



HS Advisory
System

Preparing for the Unexpected; American Red Cross Homeland Security Advisory System recommendations for individuals, families, neighborhoods, schools and businesses; a brochure addressing anthrax questions and answers; a guide for developing a family disaster plan; a guide for developing a family disaster supply kit; tips for people with disabilities and for businesses and information to help children cope with trauma (American Red Cross, n.d.,a).

Items of note in Red Cross' Homeland Security Advisory System Recommendations include introducing the "Masters of Disaster" emergency preparedness for natural disasters curriculum for grades K-8 at the lowest threat level "green" through the highest "red" or "severe" threat level; sending home copies of the brochure, *Terrorism: Preparing for the Unexpected*, with K-12 students at the "yellow" or "elevated" threat level; and offering "Facing Fear: Helping Young People Deal with Terrorism and Tragic Events" lessons in grades K-12 at the "orange" or "high" threat level (American Red Cross, n.d.,b).

Likewise, in support of National Preparedness Month, states developed their own programs such as Alabama's Be Ready Camp for which 80 sixth-graders engaged in activities such as building an emergency shelter, participating as a member of a Community Emergency Response Team where they worked side-by-side with actual first responders during a disaster exercise, and touring the Madison County Emergency Operations Center (State of Alabama, 2006). Farmington Hills, Michigan hosted an Emergency Preparedness Essay Contest. New York developed two *New York for Kids* preparedness guides that were distributed to an estimated 1.1 million New York school children. Finally,

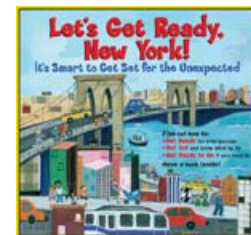


Huntsville, AL

Scioto County, Ohio hosted *Scioto Kids Get Ready* wherein 1,500 fourth, fifth and sixth-graders were shown a movie titled, *Disaster Dudes*, saw presentations by the Red Cross, Southern Ohio Medical Center, law enforcement agencies, and emergency management staff, and participated in hands-on activities



Scioto County, OH



New York for Kids

offered by approximately 40 response agencies (State of Alabama, 2006). These efforts, while commendable, lacked national coordination and standardization. Each community independently decided whether they would participate, and if so, how they would participate. Assuming reports are accurate, these four communities, three Midwest and

one northeast, represented the total national participation. While it is likely that other states participated in National Preparedness Month, the fact that efforts were not publicized also suggests that such events are not considered of national importance.

7. Analysis of Current United States Citizen Preparedness Programs

While National Strategy documents emphasize the requirement for citizen participation in disaster preparedness, the requirement is not a mandate; rather, it is based on volunteerism. The success of programs in other countries, discussed later in this paper, is partially contributed to program continuity and proactive information campaigns which the homeland security citizen preparedness initiatives currently lack. Spreading initiatives across multiple agencies with no apparent training, reporting, coordination, or standard curriculum requirement creates mission inefficiencies. Some schools have adopted DHS's *Ready Kids* campaign, whereas others have chosen the *FEMA for Kids* or the Red Cross *Get Prepared* curricula. Tragically, some have chosen not to participate at all.

The programs also lack visibility necessary to stress the importance of citizen involvement and to provide locations of preparedness resources. Currently, there are no media campaigns dedicated to educating citizens on available initiatives, nor are the initiatives readily apparent when they do exist. In order to find information on the various campaigns, citizens must somehow have the idea that such programs exist; have access to a computer; and possess adequate computer research skills.

To confuse matters even further, the Federation of American Scientists (FAS) published a report identifying several shortcomings of Ready.gov, leading to the development and publication of yet another website known as ReallyReady.org, which claims to include comprehensive and accurate information unlike Ready.gov. Specifically, FAS claims that Ready.gov offers only “generic advice, unnecessarily lengthy descriptions, and verbatim repetition of details on multiple pages, all encapsulated within a confusing navigational structure” (Federation of American Scientists. n.d.). In a 2003 publication by the RAND Corporation, the authors agreed that most of the recommendations provided by Ready.gov “are not applicable to specific

situations or scenarios, and are instead too generic to be useful” (Davis, LaTourrette, Mosher, Davis, & Howell, 2004). In support of this claim, RAND provided the following example:

‘Deciding to Stay or Go’ instructs: ‘There are other circumstances when staying put and creating a barrier between yourself and potentially contaminated air outside, a process known as ‘sealing the room,’ is a matter of survival. Use available information to assess the situation.

RAND authors find little value in these instructions due to the lack of information identifying situations when creating a barrier between an individual and contaminated air would be warranted. In addition to FAS’s claims, Zimbardo and Kluger (2003), two renowned psychologists and authors, expressed concerns about the nature of Ready.gov content, stating that the site ultimately stirs up more fear than quells anxiety. Interestingly, while FAS made significant changes to the information designed for the general public, businesses, and those with disabilities, FAS admits that Ready Kids was satisfactory for educating children about emergency preparedness.

8. Homeland Security and Emergency Management Magnet Program

Currently, the only school in the United States with a sustained homeland security curriculum is Joppatowne High School in the Harford County Public School District in Maryland. “The mission of the Homeland Security and Emergency Preparedness Magnet Program is to provide [students] access to career pathways in homeland security studies to offer them a better education and more choices to allow them to provide services back to the community, the State and the Nation” (Faina, 2007). The program started with 61 sophomores who take an initial course, Foundations in Homeland Security and Emergency Preparedness, which provides students an overview of homeland security and emergency preparedness agencies, guidelines and concepts. Specifically, the curriculum includes the following:

- General overview of the homeland security and emergency preparedness program (HSEP) and an introduction to the homeland security science strand, law enforcement and criminal justice strand, and the information and communications technology strand
- Introduction to homeland security and emergency preparedness

- Historical and contemporary perspectives
- Policies and guidelines of HSEP
- Improvements since 9/11
- Cultural and sociological perspectives
- Elements of emergency response
 - Roles of emergency responders
 - Roles of federal agencies
 - Roles of supporting federal agencies
 - Inter-relationship of local, state and federal agencies
- Methodologies of intelligence gathering and communications
 - Who, what, and how and why
 - Geospatial technology and remote sensing
- Threats to public safety and public health
 - Natural disasters
 - Man-made disasters
 - Deliberate releases
 - Countermeasures
- Personal and community responsibilities
- Selection of one of three strands
 - Homeland security science
 - Criminal justice/law enforcement
 - Information and communications technology

Students research and create their own emergency action plans, one of which challenges students to identify the agencies or responders that would help if there were a terrorist threat at a public location (Tassmer, 2007).

Students then choose areas of homeland security that they would like to explore during their junior year. Options include information and communication technology, criminal justice and law enforcement, or “homeland security science” (Harford County Public Schools, n.d.). Each program area provides two more courses about the subject and programs conclude with an internship or “capstone project,” a research-based project

students can do at school with a professional in that field who serves as a student mentor. Students “study cyber security and geospatial intelligence, respond to mock terror attacks, and receive limited clearances at the nearby Army chemical warfare lab” (Harford County Public Schools, n.d.). There are no text books for these classes, instead, a committee wrote the curriculum from scratch (Keyes, 2008). The “HSEP committee has coordinated with Harford Community College and the Community College of Baltimore County to make the Criminal Justice Track equal to a three-credit introductory criminal justice course at the colleges” (Keyes, 2008).

The two courses in the Homeland Security Science Strand include Homeland Security Science and Research Methods and Applications. Homeland Security Science is a one-credit course for those in the eleventh grade and includes an in-depth understanding of subject matters similar to those found in Cold War curricula:

- Threats to public safety and threats to public health
- Types of decontamination
- Personal and collective protection concepts
- Field instrumentation and laboratory analysis
- Plan for chemical and biological incidents

Research Methods and Applications is also a one-credit course designed for those in the first semester of 12th grade, which provides an in-depth understanding of the following:

- Proper methods of research and analysis of key homeland security and emergency preparedness concepts
- Technical writing techniques and applications
- Interpersonal communication skills and group dynamics
- Current laboratory skills and practices

During the second semester of 12th grade, a one-credit course is offered that is an internship and capstone project, including:

- Several weeks in a laboratory or field setting
- Development of a professional portfolio
- Research paper
- Series of field experiences

During the first semester of 11th grade under the Criminal Justice Strand, students take Administration of Justice I, which introduces the fields of criminal justice and corrections. Students also learn about the juvenile justice system and constitutional law. The second semester of 11th grade is a continuation of the previous semester, entitled “Administration of Justice II,” which includes such topics as criminal and forensic investigations. During 12th grade, students register for advanced studies in Administration of Justice and complete an internship. Several opportunities exist under the Criminal Justice track, such as the ability to earn college credits through Harford Community College, participation in a youth academy, the law enforcement explorer program, volunteer programs, and a mentoring program. Furthermore, job opportunities in the areas of corrections and a cadet program exist for students who are in the Criminal Justice track.

Lastly, under the Information and Communications Technology Strand, students complete the CISCO Certification Program wherein they take Networking Basics as well as Routers and Routing Basics during 11th grade, and Switching Basics and Intermediate Routing as well as WAM Technologies during 12th grade. A second proposed curriculum, created by industry to address a particular need, is the Spacestars Program, the only geospatial technologies certification program recognized by the federal Department of Labor wherein students focus on ArcView 3.3, 9.2 skills and remote sensing. During 12th grade, students complete an internship and a capstone project similar to those under the other tracks.

Aside from the excitement exhibited by school administrators regarding the variety of opportunities the HSEP program offers students, those students enrolled in the HSEP program are also very positive about their experiences. In a *Baltimore Sun* article dated January 30, 2008, the author quoted students who made the following comments:

‘The class is a great opportunity and an eye-opener,’ said Mariam Adegbesan, 15, of Joppatowne, a 10th-grader who plans to become a forensic scientist.

‘I’m learning that homeland security is about a lot more than just terrorist attacks,’ she said. ‘It’s also about daily life, safety and responsibility.’

‘I like doing the tabletop activities because they show me how people react in emergency situations,’ said Pace, 15, of Edgewood. (Fortin, 2008)

It was also noted that students enjoyed being exposed to a variety of disaster preparedness and response topics including natural disasters and man-made disasters, both non-terrorism—what to do when a tanker truck turns over on a busy highway—and terrorism related. While no studies have been conducted yet to determine if there are any negative psychological affects resulting from exposure to these potentially scary program topics, in the same *Baltimore Sun* article, one 15-year-old student did state, “It makes it scarier for me to know what will happen in certain emergency situations, but it’s interesting to learn” (Fortin, 2008). Despite this statement, this particular student is still enrolled in the program, suggesting that the information, while potentially disturbing, has not risen to unhealthy psychological levels.

While still in its infancy stage, the program appears to contain appropriate information necessary to foster an environment of preparedness and vigilance that may likely result in heightened readiness and fewer potential victims. A Joppatowne-type program, wherein students “have toured a Coast Guard command center, visited a county detection center, practiced emergency response in a fictional town called ‘Joppaville’ and heard an Iraqi-born speaker explain cultural differences between Americans and Middle Easterners,” may also build a cadre of future homeland security leaders. Interestingly, however, the HSEP was not designed for preparedness purposes. Rather, the goal of the program was to develop a forward-thinking secondary education that would provide students the skills they would need to be competitive for future jobs. Apparently, the student drop-out rate at Joppatowne High School is significantly higher than the national average, thus creating the need for a strategy focused on increasing test scores, attendance rates, and graduation rates.

Although this is a step in the right direction, Joppatowne is only one school in a nation of more than 105,000 K-12 schools (American School Directory, n.d.) to implement such a program. Other schools that have introduced homeland security preparedness education in their classrooms have done so on an ad hoc basis and without standardized curricula. In a *Baltimore Sun* blog dated December 12, 2007, John-John

Williams, IV (2007) posted his displeasure at a *USA Today* story citing Joppatowne as “the nation’s first comprehensive high school security program.” According to Williams, Baltimore City started the Homeland Security Academy at Wallbrook High School during the 2005-2006 school year, also citing school violence, low test scores, and low graduation rates as the catalyst for the program. However, the only additional published literature found through Internet research regarding the program is a Wikipedia site simply indicating that the academy focused on law and public policy, and had an enrollment of 493 students during 2007 and 363 during 2007 (Wikipedia, 2008). Given the current emphasis in the United States on publicizing homeland security education-related efforts since 9/11, the limited literature on the Homeland Security Academy suggests this program may not be robust enough to capture the attention of the media, let alone homeland security policymakers.

D. NATURAL DISASTER PREPAREDNESS

Disturbingly, similar to levels of citizen unpreparedness as it relates to scarce and/or ad hoc events such as nuclear war, pandemics and so forth, citizens are equally unprepared for natural disasters despite their continual occurrence. It seems that the lessons learned from Katrina alone would have ignited an independent preparedness activity, however, a variety of polls show otherwise. In order to put context to the notion of “prepared,” a Goliath report defined three basic benchmarks for individual and family preparedness in surveys conducted July 2005, and again in October 2005, including:

1. Possession of resources such as food, water, medication, radio and other staples useful under evacuation or sheltering conditions;
2. Formation of family plans such as meeting points, phone numbers and other pre-established decisions when faced with uncertain reunification and contact; and,
3. Knowledge of local and regional plans such as evacuation routes, shelter locations and other variables under government mandate. (Redlener & Berman, 2006)

Questions asked in these surveys as well as subsequent results are as follows.

Table 1. Personal and Family Preparedness and Awareness of Community Plans Pre- and Post Hurricanes Katrina and Rita

Question	October 2005	July 2005
Do you personally feel very prepared, prepared, not very prepared, or not prepared at all for a natural disaster or emergency weather event in your community?	53% very prepared or prepared	59% very prepared or prepared
Do you personally feel very prepared, prepared, not very prepared, or not prepared at all for a terror attack in your community?	35% very prepared or prepared	36% very prepared or prepared
Do you have a family emergency plan that all family members know about?	45% yes	43% yes
Does your family emergency preparedness plan include all, some, or none of the following; at least two days food and water, a flashlight, a portable radio and spare batteries, emergency phone numbers and a meeting place for family members in case of evacuation?	31% all	30% all
In the event of a natural disaster or community event in your area, are you very familiar, familiar, not very familiar or not familiar at all with the emergency of evacuation plan in your community?	34% very familiar or familiar	37% very familiar or familiar
In the event of a terrorist event in your area, are you very familiar, familiar, not very familiar or not familiar at all with the emergency or evacuation plan in your community?	22% very familiar or familiar	23% very familiar or familiar

Table 2. Evacuation Pre- and Post Hurricanes Katrina and Rita

Question	October 2005	July 2005
In the event of a terror attack, if you were ordered to evacuate your home or office and go to a distant location, would you leave immediately, wait until concerns about children or loved ones were addressed, or would you not leave?	56% wait or not leave	57% wait or not leave
In the event of a terror attack, if you were ordered to evacuate, thinking about your own circumstances, would any of the following keep you from leaving immediately: Not leave because you are unable to leave without help.	29% yes	25% yes
Not leave because of your lack of confidence in who is ordering you to leave.	36% yes	38% yes
Not leave because you do not have transportation.	30% yes	26% yes

Table 3. Who is Responsible for Community Preparedness?

Question	October 2005
Who is most responsible for ensuring communities are prepared for a terrorist attack?	35% federal 31% local 20% state 9% individuals 2% unsure
Who is most responsible for ensuring communities are prepared for a natural disaster or emergency weather event?	45% local 23% state 17% federal 12% individuals 3% unsure

In 2007, the American Red Cross conducted a survey finding that 93 percent of Americans were not prepared for a major calamity and few had taken any steps toward general preparedness. Likewise, according to a Mason-Dixon poll released May 31, 2008, “of the 1,100 adults polled, 52 percent said they have no family disaster plan, nearly a third have no hurricane survival kit and nearly 90 percent said they have done nothing to make their homes stronger” (Klarreich, 2007). Lastly, findings from an annual

survey conducted by the National Center for Domestic Preparedness at Columbia University in 2006 revealed that “only a small percentage of the American public is personally prepared for a disaster. Less than one-third (31%) have a basic family emergency plan (which consists of at least two days supply of food and water, a flashlight, a portable radio, spare batteries, and emergency phone numbers and meeting place) and two-thirds, 66%, feel personally unprepared. These figures are virtually unchanged from 2005 (31% and 64%, respectively)” (Redlener, Grant, Berman, Johnson, & Abramson, 2006). When asked why they have taken no steps to prepare, a quarter (26%) said they did not have enough time to assemble a kit, and another quarter (22%) said they did not know what to do to prepare. Only 3 percent said it was because they already felt prepared. Similar percentages were found in 2005, strongly suggesting that despite government efforts to encourage preparedness, the message is either not being received and/or not being embraced.

According to American Red Cross spokeswoman Gretra Petrilla, the main reason people are not prepared is that they do not believe they are at risk. Robert Palestrant, director of Miami-Dade County’s Office of Emergency Management, where people are absolutely at risk of being a hurricane victim, believes the lack of preparedness issues stems from public expectations. Specifically, “people have the expectation that my power’s out, so somebody should give me cold water” (Heath, 2007). Question three of the Goliath report suggests that Palestrant’s observation is likely accurate as only 9 percent responded that individuals are responsible for ensuring that communities are prepared for a terrorist attack, and only 12 percent believe individuals are responsible for natural disaster preparedness.

Unsurprisingly, survey results show that after Hurricane Katrina residents of Louisiana and Mississippi were more prepared than the national average (63% vs. 45% overall), however, historical trends indicate that a direct correlation between time and complacency exists. As time pushes the event further and further into the past, citizens become more complacent, ultimately resulting in an unprepared citizenry. This phenomenon begs the need for a new approach to citizen preparedness—an approach that instills preparedness as an individual core value, what an individual believes to be of

worth and importance to their life, rather than an emphasized need following disaster. Incorporating preparedness curricula in the K-12 educational system coupled with family reinforcement would likely support development of such a culture.

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III. COUNTRY AND PROGRAM COMPARISON

A. CITIZEN PREPAREDNESS IN ISRAEL: APPLICABILITY TO U.S. POLICY?

A review of other nations' citizen preparedness efforts is valuable for identifying practices that can be implemented in the United States. Research identifies Israel as having one of the most robust citizen preparedness programs; however, consideration must be given to the differences in the threat environment and the laws that govern each nation.

Israel has hardly been a stranger to terrorist attacks. According to Israeli's Ministry of Foreign Affairs, 164 Israelis were killed by terrorist attacks in the 1920s, 181 in the 1930s, 756 in the 1940s, and 347 in the 1950s. Israel experienced approximately 23 separate terrorist events in the 1960s, 23 in the 1970s, 31 in the 1980s, and 131 in the 1990s. Incidents have increased significantly since the turn of the century. From February 9, 2000, to date, Israel has been the victim of approximately 631 separate terrorist incidents, an average of 6.4 attacks per month, or 1.6 attacks per week (Anonymous author). A columnist for CNN described Israel's environment as follows:

If you go to a baseball or soccer game tonight and look around, and say, half the stadium is filled, you'll see about 25,000 other fans. If you were living in Israel, it is likely that one of you would be killed in a terrorist attack in the next six months.

Between January and July 2002, at least 225 Israeli citizens have been killed in terrorist attacks, suicide bombings or shooting rampages targeting innocent civilians at home, on buses, on city streets, at weddings, in discos or pizzerias.

One of every 26,392 Israelis has been killed in a terrorist attack in the past six months (January through July 2002). The same ratio applied to the population of the United States would equate to 10,888 American citizens. That's more than three times the number of people killed in the September 11 attacks against the World Trade Center and the Pentagon and aboard United Airlines Flight 93.

For a country the size of the United Kingdom, that ratio would mean 2,260 people killed. For Germany, it would mean 3,146 victims. (CNN.com, 2002)

Given Israel's threat environment, the desire to participate in any initiative designed to preserve human life is high. Israel's historical threat environment clearly outweighs the five terrorist events launched on American soil between the years 1920 and 2001, an average of only one attack every 16.2 years. The question is, are these five events plus statements by the U.S. government that the likelihood of another attack on U.S. soil is certain, enough incentive for Americans to embrace citizen preparedness like Israeli citizens?

Israel does not have a Department of Homeland Security like the United States. Rather, Israel established its Home Front Command (HFC), an entity of the Israel Defense Force (IDF), in February 1992, mainly as a result of the SCUD attacks during the 1991 Gulf War wherein nearly 40 missiles were fired against Israel over a six-week period. The HFC replaced the Civil Guard due to the failure of the Israeli government to respond to these attacks effectively. "The Home Front Command was primarily created to 1) free the regional commands to deal with the front line; 2) improve cooperation with emergency services (police, EMS, and fire), government ministries and local authorities; and 3) unite responsibility with the authorities" (Pockett, 2005). The mission of the Home Front Command (HFC) is as follows:



The Home Front Command constitutes a national branch responsible for the preparing the country, its citizens, its institutions, its infrastructures, and its operational formations in confronting different emergency situations. The Command constitutes a national branch responsible for the integration and assimilation of the operational blueprint and combined doctrine used to confront emergency situations in conjunction with all search and rescue organizations, civilian as well as military establishments. (Israeli Defense Force, 2007)

Specifically, the HFC is responsible for training military and civilian responders; educating civilians on preparedness and response to attacks; installation and maintenance of warning systems; preparing homeland defense and security doctrine for the IDF;

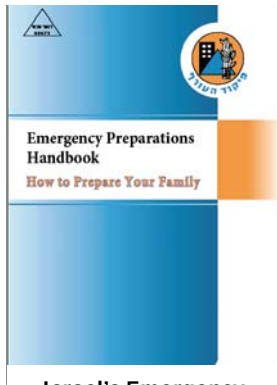
command and control of IDF forces in homeland defense and security; and providing military assistance to law enforcement during emergencies, including terrorist attacks (Israeli Defense Force, 2007).

During peacetime, the HFC oversees a variety of disaster preparedness programs, similar to those of FEMA. The HFC directs training sessions for the public in order to prepare citizens for emergencies and provide citizens the tools they need to cope with disasters effectively. “The main source of authority for training the public on the subject of civil defense stems from Paragraph 2 of the 5711-1951 Civil Defense Law (heretofore “Haga Law”)” (The Home Front Command, n.d.). Under Haga Law, HFC is authorized to 1) train and direct aid organizations to fulfill their functions in the field of civil defense; 2) train the public in matters of civil defense; and 3) to undertake any other action necessary to fulfill its function pursuant to the Civil Defense statutes (The Home Front Command, n.d.). These paragraphs allow the HFC to train “all” aspects of the public, both during emergencies and peacetime, unlike the United States where preparedness initiatives are administered by a variety of agencies and are voluntary, with roots only in national strategies including the following.

- The National Strategy for Homeland Security
 - Recognizes the critical role that state and local governments, the private sector and the American people have in securing the nation
 - Build a Citizens Corp to assist citizens in preparing to help themselves and their neighbors in response to a local attack
- Homeland Security Presidential Directive-8 (National Preparedness)
 - Encourage citizen participation and involvement in preparedness
- National Preparedness Goal
 - Risk-based all hazard and capabilities approach to preparedness
 - Citizen preparedness is an essential aspect of the national preparedness vision, capabilities and priorities

1. Israeli Home Front Command Website: Citizen Preparedness

Similar to FEMA's 200-page comprehensive preparedness guide, The Israeli Home Front Command (HFC) (n.d.) published the "*Emergency Preparations Handbook: How to Prepare Your Family.*" This 47-page handbook trains



Israel's Emergency Preparedness Handbook

families to be aware of threats, how to choose an interior protected space, how to choose and prepare a sealed room, and how to prepare an emergency plan for your family. The handbook can be found on the HFC website, along with links



Home Front Command Website

to threat descriptions; specific threat guidance by area of residence; and directions for how to act in the event of missile and long-range rocket attacks, Qassam rocket or mortar attacks, terrorist attacks, earthquakes, fires, floods, and in the event of a hazardous material spill.

2. Israeli Home Front Command: K-12 Educational Efforts

As a result of the Palestinian Qassam rocket threat against Israel, the Israeli HFC initiated K-12 sessions aimed at providing children who live in communities near the Gaza Strip with a sense of security (Greenberg, 2005).



Home Front Command Soldiers in Action

Israeli HFC counselors visit each school to educate children on their new reality. Including what threats are and how to defend themselves against these threats. "As part of the session, counselors distributed special booklets for young children to learn about terrorists, mortar shells, and light weapons fire. The children are asked to respond

to questions about what they would do in various situations, and to draw Qassam rockets as they imagine them to look like. This way, the child sees that the Qassam is not a big

thing. The child understands its proportions, and this gives him the feeling that he can deal with it, dispelling the feeling that one must live with eternal insecurity,” according to a HFC officer (Greenberg, 2005).

In addition, the Israeli Ministry of Education has incorporated a five-lesson unit in K-12 school curricula that teaches children about the various types of emergencies along with the appropriate ways to deal with them. To further this education, the HFC holds “annual national drills in all educational institutions in the country” (Home Front Command, n.d.,b).



Security Studies
in Israel

In December 2007, the Israeli HFC launched a new educational campaign airing educational broadcasts, and distributing booklets translated into six languages to every Israeli household, with advice on how to prepare for various threats (Kidon, 2007). As part of the campaign, school teachers “will teach a class about emergencies, and a work book will be distributed to students to work on at home with their parents. Concurrently, instructional videos for children will appear on the Homefront Command website, alongside other instructional videos” (Kidon, 2007). Other efforts by the HFC include supplying all households with kits containing gas masks and Atropine pens, with cartoon-based instructions for children in order to reduce the scare factor. Additionally, during times of emergency, high school students will be recruited to assist the HFC and rescue forces by distributing medicine, helping the civilian population including their fellow classmates who are in shelters, and assisting hospitals.

Similar to the United States, preparedness programs in Israel have also faced opposition. One article published in *Haaretz* written by Uzi Benziman (2008) headlined, “The Home Front’s Hysterical Calming,” states that despite professional input by self-defense experts, psychologists, social workers, and physicians, the totality of the information provided by the HFC “indicates a loss of common sense” (Benziman, 2008). Specifically, Benziman argues that the mere fact that the HFC recommends ‘immediate’ action by the public to prepare emergency kits and family plans suggests either the government knows of an existing threat and is not sharing important information with the

public, or the HFCs judgment is simply impaired. Either way, the author suggests the HFC is instilling unnecessary fear, yet recognizes that the HFC has a job to do. The author suggests the following:

The way to bridge the contradiction is proper timing: People in the North needed a pamphlet of this sort with the outbreak of the Second Lebanon War. It is unnecessary now. It is logical to instruct the public to identify the reinforced space at its disposal and to recommend keeping the pamphlet in an accessible location, in the event of an emergency. It is foolish to urge the public to immediately fulfill all the instructions. (Benziman, 2008)

Essentially, the author is suggesting that the Israelis should approach preparedness in an ad hoc fashion as the United States did historically—encourage preparedness only when an actual threat exists. However, as was seen in the United States, an ad hoc approach is ineffective and inefficient and will eventually lead to apathy. The importance of the timeliness of the information, however, cannot be argued.

Interestingly, publications in Israel regarding potential coping issues in children mirror those found in the British studies previously mentioned. In an article by Dr. Batya Ludman, an Israeli licensed clinical psychologist specializing in trauma, bereavement and loss, stress, anxiety and depression, parenting issues, behavioral problems, marital and communication issues, she states,

Most children in Israel will cope very well with being in a shelter as they will be with their parents and will therefore feel secure. Assuming that parents remain calm and are in control, children will feel safe. It is important to remember that if you are calm—they will be calm. (Ludman, July 14, no year listed)

Dr. Ludman provides the following advice for making the shelter experience as least frightening as possible.

- Make the experience fun
- Stay in control and give children a sense of safety and security
- Talk to children before there might be an actual need to use the “safe room” but wait until the time seems right
- Describe the space and allow them to see the space

- Rehearse
- Some children may benefit from having a buddy to chat with
- Make the information developmentally and age appropriate
- Children do best with simple and straightforward explanations and not a lot of unnecessary details
- Be honest and upfront, but do not overwhelm children with your fears
- Listen to their questions and know when to probe deeper to find out what they are really asking
- Clear up any inaccuracies or confusion
- Validate their concerns
- Convey to them that their safety takes top priority
- Hug and cuddle your children
- Make the space friendly
- Allow children to pick one or two special things to bring into the room with them
- Arts and crafts supplies and photo albums help to pass time
- Music can be soothing
- Empower the children so they feel good about their protected space
- Think and practice relaxation
- If needed, get professional help for you or your child
- **Preparation is a wonderful way to cope** (emphasis added)

3. **Analysis of the Israeli Home Front Command Model**

The success of HFC citizen preparedness programs can be attributed to several factors. First, the campaign is centralized with one agency overseeing all operational efforts. Centralization ensures that the preparedness message is consistent and timely, unlike current U.S. programs that are spread across multiple agencies and levels of government. Second, media campaigns have been utilized to ensure visibility. As such, Israeli citizens are aware of HFC initiatives and where to find information before, during, and after a disaster. Third, the HFC has taken the preparedness message to the K-12 school system ensuring a culture of preparedness, thus increasing available resources in

the event of a disaster while reducing the number of potential victims. Lastly, during the 21st century alone, Israel has been the victim of terrorist attacks on an average of 1.6 incidents per week. Given Israel's extreme threat environment, the desire by citizens to participate in any initiative designed for survival is high. While no measurements exist to determine how many lives have been saved or to calculate the reduction in the number of victims due to these self-help initiatives, given the continual attacks on Israel, stories of success must exist. To save only one human life ... priceless!

4. Comparative Analysis and Recommendations

Despite the fact that the United States has yet to experience a similar threat environment as that of Israel, some of Israel's program attributes are still relevant and should be considered for inclusion in U.S. policies. After examining both United States and Israeli citizen-preparedness models, potential educational enhancement opportunities for the United States were identified as depicted in Table 4.

Table 4. Comparative Analysis of United States and Israeli Citizen Preparedness Efforts

Educational Efforts	United States	Israel	Recommendations for U.S. Application
Structure	U.S. citizen preparedness is a multi-agency effort including DHS, FEMA, and Red Cross.	Israeli Home Front Command is the primary agency for citizen preparedness.	Centralize citizen preparedness efforts with one agency to ensure standardization and accountability.
Authority	Based on national strategies and volunteerism.	Based on Haga Law.	Continue to encourage participation on a voluntary basis.
Public Education	Several initiatives by the various agencies offered to the public through websites and state-sponsored citizen preparedness campaigns.	Citizen preparedness education offered on the HFC website, and through brochure distribution and public service messages.	Add public service messages encouraging citizens to visit websites for further preparedness information.

Educational Efforts	United States	Israel	Recommendations for U.S. Application
K-12 Education	Current initiatives are ad hoc and offered only in some schools.	Sustained effort by HFC officers who go from school to school. The Ministry of Education also includes a five-lesson unit in K-12 curricula.	Identify subject matter experts to teach threat and disaster preparedness in schools. Incorporate standard homeland security preparedness curricula in the K-12 system.

Four areas for consideration are identified as follows.

1. The United States should centralize citizen preparedness efforts with one agency to ensure standardization and accountability

While citizen preparedness programs offered by DHS, FEMA, and the Red Cross are consistent where information overlaps, each organization developed their own unique initiatives. Some are focused more heavily on citizen preparedness and recovery during natural disaster, while others were designed to provide guidance to teachers as to what children should be taught during corresponding threat levels. In contrast, the Israeli Home Front Command is the main entity charged with citizen preparedness as cited under Haga Law. All disaster-related information can be found on the Israeli HFC website and through public broadcast messages via an HFC-owned television station. Additionally, and with the exception of the Ministry of Education's five-lesson emergency preparedness unit in schools, HFC is the only entity in Israel that provides disaster training to school children, provides gas masks and Atropine kits to residents, and publishes homeland security preparedness brochures and handbooks. Maintaining information in one central location by one agency ensures citizens will receive standardized information in the most efficient manner. Israeli citizens know to tune into the HFC for whatever homeland security information they need, whereas, U.S. citizens would have to visit a variety of agency websites to receive preparedness information in its entirety. Likewise, by having one agency charged with all citizen preparedness efforts, a higher level of accountability naturally follows.

2. Add public service messages encouraging citizens to visit websites for further preparedness information

One initiative lacking in U.S. citizen preparedness is the use of public information messages to stress the importance of citizen involvement and to provide locations for preparedness resources. It is likely that most American citizens are unaware of the information offered by DHS, FEMA, and the Red Cross unless they were involved in a previous disaster such as Hurricane Katrina or Rita. On the other hand, the Israelis run periodic public broadcast messages reminding citizens of their individual responsibility toward preparedness and to encourage citizens to access the HFC website for detailed information. History has shown that American citizen volunteerism and sense of duty remains high. However, unless citizens are aware of current preparedness initiatives, they will not know how to be involved until the next disaster strikes. Current initiatives must be advertised in obvious locations, requiring little to no research by citizens. Periodic public service messages or billboard advertisements would offer the most visible location to educate citizens as to what they can do to get involved and where to look for further information.

3. Identify subject matter experts to teach threat and disaster preparedness in schools

The United States is not a stranger to special topic initiatives in the classroom taught by certified officers. Some initiatives in American schools have included the Drug Abuse Resistance Education (DARE) program and violence prevention programs offered by School Resource Officers (SRO). “The SRO is specifically trained to perform three roles: law enforcement officer; law-related counselor; and law-related education teacher. The SRO is not necessarily a DARE officer (although many have received such training), security guard, or officer who has been placed temporarily in a school in response to a crisis situation but rather acts as a comprehensive resource for his/her school” (Center for the Prevention of School Violence, n.d.). This begs the question, given today’s homeland security environment, why doesn’t the United States have subject matter experts teaching threat and disaster preparedness in schools? Currently, only ad hoc initiatives have been

introduced. In order to build any meaningful level of disaster involvement by children, the United States should review in full Israel's certified homeland security officer program for possible inclusion in the U.S. school system.

4. Incorporate standard homeland security preparedness curricula in the K-12 system

The Israeli Ministry of Education has incorporated a five-lesson unit in K-12 school curricula, which teaches children about the various types of emergencies along with the appropriate way to deal with them. To further this education, the HFC holds national drills on a yearly basis in all educational institutions in the country. Additionally, at times of emergency, high school students will be recruited to assist the HFC and rescue forces by distributing medicine, helping the civilian population including their fellow classmates who are in shelters, and assisting hospitals. Currently, the only school in the United States with a sustained homeland security curriculum is Joppatowne High School. While this is a step in the right direction, again, this is not sustained education mandated in all schools. The United States should consider the Israeli approach to standardized curricula in the K-12 system, while keeping in mind the age appropriateness of such curricula.

B. CITIZEN PREPAREDNESS IN THE UNITED KINGDOM

Memories of the U.K.'s civil defense efforts date back to the early 1950s when several significant actions commenced. Most notable was Britain's move to establish a nationwide Civil Defence Corps, the only NATO member to do so, wherein "several hundred thousand British volunteers gave up their weekends and evenings to train as wardens, firefighter, and rescue workers, in radiological monitoring, reconnaissance, and the welfare work of emergency housing, feeding, and registering the homeless" from 1950 through 1968 (Davis, 2007, p. 25).

In conjunction with the Civil Defence Corps, Britain used advertising in the form of print media, short films on the BBC and in cinemas, as well as exercises and demonstrations to educate the public and promote civil defense. However, Britain faced challenges in enlisting the hearts and minds of the young. While British scouts were

actively engaged during WWII and the Cold War, those age 15 and under were not allowed to participate in exercises as they were not covered by the Personal Injuries (Emergency Provisions) Act of 1939, and therefore, any sustained injuries could not be compensated. Furthermore, those under the age of 18 could not enlist in the Civil Defence Corps.

By 1958, one in 70 adults or 1 percent of the British population had trained in civil defense; 350,000 volunteers in the Civil Defence Corps and 200,000 in industrial civil defense, 55 percent of whom were women (Davis, p. 35). From the mid-1950s through the mid-1960s, Britain's women's civil defense program encouraged knowledge through the "One in Five" campaign, meaning that "the nation would be strengthened if one-in-five women knew the simple things they could do to mitigate effects of nuclear warfare" (p. 35). Accordingly, ad campaigns depicting housewives and school teachers who joined the Corp to make new friends or who witnessed the devastation of her own home and now instructs in the Welfare section of the Corp, were used to encourage women to volunteer. Similar masculine ads were used to target men.

In 1963, the Home Office, the U.K.'s ministry responsible for civil defense, published *Advising the Householder on Protection against Nuclear Attack*. However, the booklet was for purchase only and not distributed to the public (Davis, p. 31). Like U.S. civil defense programs during this same era, as the threat waned, so did the government's interest in promoting programs, thus leading to apathy. The Civil Defence Corp was officially disbanded in 1968, however, the Royal Observer Corps continued to staff 870 monitoring posts into the early 1980s.

In 1979, "a review of civil preparedness for home defence," as it was called, was launched, which again sparked Britain's public's interest in civil defense. During the 1970s and 1980s, a series of 20 animated films designed to provide instructions on how to improve chances of surviving a nuclear attack were released along with a series of leaflets. One leaflet included a message from the Home Secretary and the Secretary of State for Scotland discussing the importance of civil defense during wartime as well as peacetime, which stemmed from a public relations battle with peace groups who opposed

civil defense efforts. This led to the “1986 Civil Protection in Peacetime Act which allowed civil defence resources to be used for peacetime emergencies” (Fox, 1996). In their words,

Why bother with civil defence? Why bother with wearing a seat belt in a car? Because a seat belt is reckoned to lessen the chance of serious injury in a crash. The same applies to civil defence in peacetime. War would be horrific. Everyone knows the kind of devastation and suffering it could cause. But while war is a possibility—however slight—it is right to take measures to help the victims of an attack, whether nuclear or ‘conventional.’ (Central Office of Information for Her Majesty's Government, 1981)

Other films included “recognizing warning sirens; choosing the best place for a fall-out space; improvising toilet facilities with a dining chair and bucket; limiting fire hazards, name-tagging dead family members and digging trenches in which to bury them” (McGahan, n.d.). While the government in conjunction with Richard Taylor Cartoons went through great lengths to produce these films and leaflets, they were designed to be aired on domestic television and distributed to homes only had an attack been deemed imminent by the government. As no such situation arose, the films and leaflets were never circulated. By the turn of the decade, the Cold War had come to an end and civil defense efforts were suspended. The Royal Observer Corp stood down, the siren warning system was scrapped and the Regional Government Headquarters was closed. By 1993, local authorities had abandoned their war plans and citizens were left wondering whether it was really worth it.

1. United Kingdom: Current Preparedness Programs

Britain’s Security Service, or MI5, is charged with the responsibility of “ensuring that the UK is as ready as it can be for the consequences of a terrorist attack” (Security Service MI5, n.d.,a). One objective under this goal is to prepare citizens for emergencies, much like Israel’s Home Front Command. However, advice provided to the public often encourages citizens to report information to the U.K.’s Metropolitan Police rather than MI5, thus, creating an agency split that may likely be confusing and could possibly result in the release of uncoordinated and/or potentially conflicting information. In 2005, the

Government published *Preparing for Emergencies—What you need to know*, which was delivered to over 25 million households throughout the United Kingdom (Security Service MI5, n.d.,a). Additionally, a website was established providing individuals, communities, families, businesses and voluntary and/or community groups, information regarding actions that can be taken to reduce the risk of emergencies and advice for coping with the effects of emergencies if they do occur. The website also explains what the government is doing, offers advice regarding specific emergencies, and other miscellaneous information such as a glossary of terms and a list of frequently asked questions (Security Service MI5, n.d.,b).

A review of the information contained on the website revealed much of the same advice offered by the United States to its citizens. For example, under *What You Can Do*, the website encourages citizens to prepare a list of useful phone numbers including doctors and close relatives; gather home and car keys; pack toiletries, medicines, torch with spare batteries, candles and matches, first aid kit, mobile phone, cash and credit cards, spare clothes, and blankets. Interestingly, however, the website only encourages this type of preparedness if you are at home and *after* an emergency happens, though the website does recommend always having bottled water, ready-to-eat food, and a bottle/tin opener in case you have to remain in the house for several days (Security Service MI5, n.d.,b).

Also noted was the emphasis on severe weather including flooding and drought, health, terrorism, transport accidents, animal and plant diseases, public protest and industrial action, international events, utilities and power supply, “built environment,” and fire safety. While each of these sections provides information regarding the particular hazard with step-by-step instructions for dealing with these various situations, only under flooding is there a preparation guide offering advice on what to do in advance to protect families and property. Similar to U.S. programs, the United Kingdom does not have one media station dedicated to disaster preparedness and warnings. Rather, the website contains links to seven separate radio stations, four television and online media outlets, and eleven online newspapers. As such, British citizens are also not guaranteed one consistent message from one trusted entity.

Remarkable is Britain’s emphasis on keeping the public informed on terrorism related issues under its preparedness campaign. For example, the website contains a link to a report defining the current risk of terrorism in the United Kingdom—characterized as “severe” even though attacks in Britain pale in comparison to those in Israel. Also included is information regarding efforts undertaken by the government to protect the United Kingdom; advice on how to stay safe; terrorism and the law, surveillance reports regarding the July 7, 2005 London bombings, the U.K.’s strategy for countering international terrorism; what to do if you receive a suspect chemical or biological package; and so forth. Additionally, the website offers links to the National Risk Register regarding natural events, major accidents and malicious attacks. The National Risk Register is a good source of information, partly designed to provoke thought by organizations as to how they would cope with significant reductions in staff or if there was a denial of access to a cite. The section designed for individuals, families and communities, however, is simply a repeat of what is found on the website.

2. Comparative Analysis and Recommendations

After examining both the U.S. and the U.K. citizen preparedness models, only one potential educational enhancement opportunity was identified for the United States as depicted in Table 5.

Table 5. Comparative Analysis of U.S. and U.K. Citizen Preparedness Efforts

Educational Efforts	United States	United Kingdom	Recommendations for U.S. Application
Structure	U.S. citizen preparedness is a multi-agency effort including DHS, FEMA, and Red Cross.	MI5 and the Metropolitan Police Department each have a role in U.K. citizen preparedness.	No recommendations from the U.K. model.

Educational Efforts	United States	United Kingdom	Recommendations for U.S. Application
Authority	Based on national strategies and volunteerism.	Based on national strategies and volunteerism.	No recommendations from the U.K. model.
Public Education	Several initiatives by the various agencies offered to the public through websites and State sponsored citizen. preparedness campaigns.	Citizen preparedness education offered on a U.K. website, and handbooks distributed to households.	Distribute preparedness literature to U.S. households.
K-12 Education	Current initiatives are ad hoc and only offered in some schools.	No information found regarding K-12 preparedness efforts.	No recommendations from the U.K. model.

As previously mentioned, most of the literature provided on the U.K. preparedness website instructs citizens on how they should *respond* in case of an emergency, rather than how they could prepare in advance of a known or surprise event. While this information is still pertinent, it does not encourage citizens to take an active role in their own safety and wellbeing. Likewise, as preparedness is not governed under U.K. law and based solely on volunteerism, this wait-and-see approach would not compel citizens to take a proactive role in preparedness. Rather, most would likely reserve their energy until faced with imminent danger. Additionally, both MI5 and the Metropolitan Police are involved in U.K. preparedness efforts, neither of which has taken a lead role. Exacerbating the issue is the fact that the United Kingdom uses multiple media outlets to inform citizens about hazards, rather than one dedicated station issuing one consistent message.

Similar to the Israeli model, the U.K. distributed preparedness handbooks to British households. While this approach does not guarantee compliance, it does serve to emphasize the government's position on citizen preparedness, and for those who read it, it does provide guidance for individual and family preparedness as well as locations

where more information can be found. The United States should consider adopting such an approach to assist in educating citizens on the government's expectations of them that they say is currently unclear. No information could be found regarding the U.K.'s efforts to educate children through pamphlets, the website, media outlets, school curricula or otherwise. This is not surprising given the government's lack of emphasis on citizen preparedness in general. Similarly, information regarding the possible psychological effects of being exposed to or preparing for disaster on adults as well as children was nonexistent. Research was unable to identify any studies conducted to gauge levels of U.K. citizen preparedness as a result of current initiatives thus making it difficult to conduct conclusive analysis of the U.K. model and potentially identifying best practices for U.S. implementation.

C. CITIZEN PREPAREDNESS IN AUSTRALIA

1. Australia: Current State of Preparedness

Dr. Roy Giles, Former British Army colonel and British counter-terrorism expert ranked Australia second only to the United States in its terrorism preparedness level, citing the government's anti-terrorism kit as the reason for their success (ABC News, 2007). However, in a report prepared by the Australian Strategic Policy Institute (ASPI), they concluded, "when it comes to time spent planning and resources applied to managing risks on an all-hazards basis, there has not been sufficient effort to engage the Australian community on what Australians can do for themselves in the face of high consequence events like terrorism and extreme natural disasters" (Templeman & Bergin, 2008). Australian citizens have little concept of planning for situations where they may not have access to food, water or power for days, nor are many educated in basic first aid. Much like Robert Palestrant's statement regarding U.S. citizens' expectations that they will be taken care of during disaster, ASPI stated that so many in the Australian community believe that by dialing an emergency number they will receive an instant response. Interestingly, ASPI opined that today's environment of "just-in-time" shopping and instant access to banking and other goods and services is the reason for such complacency.

ASPI further argued that because Australia has not actually been tested by a major disaster that Australians are unable to contextualize the consequences of such an event. In fact, many believe that Australia's successful response to the 2002 Bali bombings in which 88 Australians died and 66 were critically injured is evidence of how Australia would deal with all range of disaster including a Hurricane Katrina. Given the survey results that show continued unpreparedness levels of U.S. citizens despite first-hand exposure to mass disaster, this should be of concern to the Australian Government and should be addressed in Australia's efforts to encourage citizen preparedness. Also of concern is Australia's aging population which has reduced the amount of people willing and physically able to assist in disaster preparedness and response.

While information regarding Australia's historical preparedness efforts was not readily accessible, reports regarding the current state of Australia indicate that even basic levels of preparedness planning have not been achieved. For example, Australia has yet to conduct any type of public communications campaign to inform the community on how they could cope in the event of an influenza pandemic. Likewise, Australia has yet to establish an effective national community information and warning system capable of informing citizens during the time leading up to, the occurrence of, and during the recovery stage of disaster. While Australia recognizes that preparedness at the family and individual level is important, evidenced by the following analogy, much work must be done.

Take fire prevention as an example. Generally, people do not perish in houses with sprinklers. The simple adaptation to fit sprinklers in all new houses coupled with cisterns which can capture storm water is one way to contribute to family resilience. (Templeman & Bergin, 2008, p. 18)

2. Australia: Recent Child Educational Efforts

Encouraging is Australia's recent efforts to engage citizens in preparedness despite the fact that no mandate, legislation or Cabinet endorsement names any agency as the entity responsible for preparedness. Instead, "the Australian Government, through the Department of Immigration and Citizenship, provided funding from 2006-2010 to the Attorney General's Department (AGD) to undertake a number of initiatives based on

principles of preparedness, comprehensive prevention and effective response and recovery to emergencies” (Australian Government, n.d.). Within the AGD is Emergency Management Australia (EMA), the entity responsible for implementing some of these initiatives. Of importance to this thesis is again the recognition by yet another country, Australia, that children play an important role in communicating the disaster preparedness message as evidenced by the following statement:

Given children’s information brokering role and also the importance of the community as cultural facilitators, it was determined that the resource be developed in a culturally inclusive manner for teachers of young people in Years 8 to 10. In this way, the resource could be used to help build the capacity of culturally diverse communities to mitigate and respond to emergencies. (Australian Government, n.d.)

Recent efforts by the EMA include a *People, Get Ready* website, designed to assist Australians in understanding their place in the community and to educate citizens on what they should do if a disaster or emergency arises (Australian Government, n.d.). Included on the website are teaching and learning activities for students of primary and secondary school age. Lesson plans are as follows.

Me and My Community: Encourages children to consider individual and community perspectives and explore their sense of belonging as a citizen of the world. Working individually and together, students will develop their understanding of the sensitivities of communicating with different communities, strengthen the similarities and devise a communications strategy for a target community audience.

Duration: 5 – 10 periods

Subject Areas: English, health and physical education, studies of society and the environment

Activities: Students think and write their thoughts about what the words *belonging* and *community* mean.

Students then think about the different groups they belong to and document their answers on a worksheet, starting with themselves at the center of a circle and moving out, identifying family, extended family, local community, friends, school, suburb, city, state, nation, and world.

As students complete each circle, they are asked to write phrases describing each group. Students can add drawings, photos or as much detail as they would like.

Students then identify key events that have helped to make them who they are such as their birth, first day at school, first arrival in Australia, first making a friend, first time they played sports, when they first learned to read or speak English, and so on.

Once the *Me, Communities and Belonging* and the optional timeline activities are completed, students are organized into pairs or groups, and asked to share their work and reflect on these questions:

- Which groups do I most identify with? Why?
- What have been some important events in my life so far? How have these impacted on how I view the world and communicate with others?
- How do I communicate best with different groups? Do these groups have different ways of communicating? Why?
- What symbols do different groups use to identify themselves and how do these symbols show that someone is part of the group?

As a whole class, students are asked to report back on the different groups they all belong to by responding to the following questions and graphing the information:

- Who makes up our school community?
- What are the different cultural identities held in the community?

Once the graphs have been completed, students are placed into smaller groups. The task for each group is to select one language, cultural, nationality or religious group that they will need to research. Students are asked to complete a table based on what they have learned about the demographics of their community.

As they research their group and answer questions provided, students develop an understanding of the best ways to communicate with members of their target community. Students then work together to devise a basic Communications Strategy for effectively communicating with their target group.

Students present their strategy to the whole class while teachers draw a Venn Diagram on a whiteboard, identifying the similarities and differences of communicating with the different community groups. Where the circles overlap, instructors write in the similarities to show students that, while we are all different, in many ways we are all very similar as well.

Take the Communication Mission: Following on from *Me and My Community*, these activities place students in the role of advertising executives whose brief is to research, design and make a television or radio advertisement to help newly arrived people and those in their community with lower level English language

skills to be better prepared for emergency situations. With real purpose and for a real audience, the students will explore the use of text, symbols and key messages in conveying their point of view.

Duration: 5 – 10 periods

Subject Areas: English, health and physical education, the arts, studies of society and the environment

Activities: Students develop a complete list of emergency services for future reference and spend some time discussing how words can sometimes have strong associations with positive or negative emotions. (e.g., Police, SES, Fire brigade, volunteer).

Students act as advertising executives with a challenging brief. They need to communicate important information in a short period of time (60-90 seconds) for the benefit of the community. The final advertisements will be presented to the class and possibly members of the community.

Students consider what would make an effective TV or radio advertisement for newly arrived or non-English speaking people about being prepared for an emergency. Students are then broken into groups of four to five and are given roles, tasks and timelines. The group's task is to generate their own concept map with focus on (1) a particular target community and (2) a particular emergency situation that would be relevant to that community group. (3) Students then decide on a relevant emergency situation and (4) generate a concept map answering the key question: What would make an effective TV or radio advertisement for this community group on being prepared for this emergency? (What do we need to include? What strategies should we employ?) (5) Begin planning the advertisement. The advertisement should be 60-90 seconds long. The group needs to plan out:

- The key message
- What will happen in the advertisement
- What will happen to capture people's attention and sustain it
- How the message will be conveyed

Students are given a number of screens and prompts to help organize their plan which is based on their key message and communication strategies. Students then draft the script, collect images, write key messages in the target language, make contact with members of the community (if in the communication strategy), and plan the filming/recording.

As films/recordings are finished, they may be placed on a school intranet that allows for reviewing and voting. Lastly, teachers may consider arranging a presentation night, inviting members of the school and local community or local emergency services to this celebration.

Experiences of Emergencies: How do people cope in an emergency? Students will interview and collect stories from people in their family or local community and report back about their experiences.

Duration: 2 – 4 periods

Subject Areas: English, Health and Physical Education, Studies of Society and the Environment

Activities: Consider situations that can be defined as disasters or emergencies, making sure there is a mixture of large scale and local examples:

- floods
- high winds
- power failures
- cyclones
- bushfires
- chemical spills etc

Ask the groups to list what they already know about:

- emergency experiences
- how these experiences can affect individuals
- how family, community, government and non-government agencies can provide help in times of disaster and emergencies
- the personal characteristics that help people cope with emergencies

Come together as a class and ask each group to report back on what they learned in the individual story. Discuss as a class the differences and similarities in the experiences portrayed in each individual story after each group has reported back.

Break into pairs and ask each to identify a family member, friend or local community member who they will interview about their experiences of a disaster or an emergency using four pre-established questions. Teachers remind students that disasters and emergencies take many forms and discuss how they might deal with cultural sensitivities and show an understanding if someone is feeling uncomfortable or reluctant to share their experiences with them. Teachers may also discuss the sorts of strategies students might use to help people feel comfortable and also how to keep them on track.

Organize a time for each story to be presented to the class.

Families Preparing Together: What disasters are relevant to your area? Where would you go to for help? Would you know what to do? Students will create an evacuation plan for their own home and help their family to prepare for a possible emergency.

Duration: 2 – 4 periods

Subject Areas: English, health and physical education, studies of society and the environment

Activities: Discuss a successful family evacuation plan identifying the key steps that every evacuation plan needs to address. Teachers work with students to review and reclassify evacuation plan ideas, resulting in a consolidated list of essential emergency and evacuation key words and terminology, the types of family characteristics that could affect family evacuation plans (including family size, location, religious and cultural beliefs, health, dietary requirements, disability, pets etc), and how to present information in ways beyond just text.

To help further clarify terms and ideas discussed, students are divided into pairs and worksheets are used to find out additional information or assistance they might need such as technical terms, any family characteristics outlined in the worksheet affecting their family evacuation plan, and how they could present information in a range of ways, with or without words.

Using a worksheet entitled, *Make Your Home Safe*, students develop a family evacuation plan, drawing on the important steps outlined in the whole class discussion and expanded upon in their pairs. Children should be encouraged to make their evacuation plans visually exciting by using symbols, paints, pencils, labels, and so on.

Evacuation plans are displayed around the classroom and discussed. Students are asked what they intend to do now that their evacuation plan is complete. Students are also encouraged to display their plans in a prominent place at home, making sure that every member of the household is aware of what to do in case of an emergency. (Emergency Management Australia, n.d.)

Also on the website is a link established for a future interactive exercise known as *Dingo Creek* wherein middle year students are able to put natural disaster in Australian context. *Dingo Creek* is a fictitious Australian coastal community that was hit by disaster. The mission of participants is to travel back in time to change the consequences of the future. Students engage in the process by identifying risks from natural disasters to their immediate community, and they question “the emergency risk management process to mitigate the impacts of natural disaster on the Australian environment” (Australian

Government, Attorney-General's Department, n.d.). Included is an extensive teaching manual with eight off-line lesson plans, providing the opportunity for raised awareness of local risks of natural disaster, an understanding of the emergency risk management process, and enhanced community resilience to natural disaster.

3. Comparative Analysis and Recommendations

While Australia has not been the victim of a terrorist attack similar to a 9/11 or weekly bombings experienced by Israel, Australia has and will continue to experience a variety of natural disasters, the predominant reason for their current emphasis on citizen preparedness. As preparedness programs in Australia are only two years old, studies have not been conducted to identify best practices; however, areas for improvement were outlined in a recent document published by the Australian Strategic Policy Institute. Despite this fact, the United States may nevertheless learn from Australian initiatives. After examining both the U.S. and the Australian model, potential educational enhancement opportunities for the United States were identified as depicted in Table 6.

Table 6. Comparative Analysis of U.S. and Australian Citizen Preparedness Efforts

Educational Efforts	United States	Australia	Recommendations for U.S. Application
Structure	U.S. citizen preparedness is a multi-agency effort including DHS, FEMA, and the Red Cross.	Emergency Management Australia has responsibility for only some of Australia's citizen preparedness initiatives. However, only EMA has published preparedness information thus, currently ensuring one consistent message.	Centralize citizen preparedness efforts with one agency to ensure standardization and accountability.
Authority	Based on national strategies and volunteerism.	Based on volunteerism.	No recommendations from the Australian model.

Educational Efforts	United States	Australia	Recommendations for U.S. Application
Public Education	Several initiatives by the various agencies offered to the public through websites and state-sponsored citizen-preparedness campaigns.	Citizen preparedness education offered on the EMA website. Public campaigns and warning systems not yet established.	Localize all preparedness education on one website sponsored by one lead agency.
K-12 Education	Current initiatives are ad hoc and only offered in some schools.	Recent development of standard K-12 curricula offered on the EMA website, however, not mandatory. Curricula are capable of addressing specific threats in specific areas. One curriculum specifically designed for students to educate families.	Develop standard K-12 preparedness curricula capable of addressing specific threats in specific areas. Design curricula to encourage family education.

Unlike the United States and the United Kingdom where preparedness efforts are encouraged by national strategies, and unlike Israel where preparedness efforts are governed by law, Australia's preparedness programs are simply initiatives funded by Australia's Department of Immigration and Citizenship, budget years 2006-2010, explaining the noticeable emphasis on cultural diversity in K-12 preparedness curricula. There is no indication whether programs will continue to be funded thereafter. However, given the amount of research and planning placed into the development of public service messages and a national warning system coupled with the recurrent threat of natural disaster, it is likely that funding will continue into the future. According to Australian Government websites, Emergency Management Australia is responsible for implementing some of the preparedness initiatives; however, there is no indication as to what other agencies are involved and to what extent, making it difficult to analyze the effectiveness of Australia's preparedness program structure. While multiple agencies are

apparently charged with the preparedness message, only EMA has published literature on the government's website, resulting in one consistent message. This; however, will likely change due to the recently published ASPI report wherein several program shortcomings were outlined, as well as the fact that capabilities and ideas will naturally expand over time as with any program in its infancy stage.

One area for potential implementation in the United States is Australia's K-12 curriculum, which is designed in a manner that allows for education consistent with the actual threats faced by a particular area as well as consistent with the ethnic composition of communities. For example, during the *Take the Communication Mission* course, students prepare an advertisement for radio or television to help those in their community to be better prepared for an emergency situation. Students are free to select a particular disaster and the community they wish to address. Teachers, however, are to ensure that the selected disaster would actually occur in that particular community. As was seen in U.S. programs, attempts to teach communities about threats that would likely never occur in that area—e.g., tsunami in Kansas—or threats that the community knows they could never be protected from—nuclear attack—is ineffective and will only lead to complacency. Therefore, it is important that developers of preparedness curricula allow room for flexibility. Likewise, when tasked with delivering the preparedness message, students must take into consideration the ethnic composition of the community they are addressing and the accompanying cultural sensitivities. Students are to design their communications plan to address such issues.

As EMA has been the only entity to publish K-12 preparedness curricula in Australia to date, students receiving such education are benefiting from one consistent message, unlike students in the United States where a wide variety of preparedness curricula is available, often containing conflicting information. Also notable is Australia's *Families Preparing Together* curriculum specifically designed for students to bring the preparedness message home to help educate families. This was based on Australia's recognition that children possess strong information brokering skills critical for educating wider populations, another important area to be considered for U.S. application.

D. SUCCESSFUL PREPAREDNESS/PREVENTION PROGRAMS

1. Smokey Bear

The Smokey Bear campaign is the longest running public service campaign in history. “Smokey's first forest fire prevention message remained unchanged for 50 years until April 2001, when the Ad Council updated his message to address the increasing number of wildfires in the nation's wildlands”

(Smokey's Vault, n.d.,a). The Smokey Bear campaign was created in 1944 in response to the threat of forest fires from enemy shells during World War II. During the spring of 1942, “a Japanese submarine surfaced near the coast of



Smokey Bear

southern California and fired a salvo of shells that exploded on an oil field near Santa Barbara, very close to the Los Padres National Forest. This created fear that enemy incendiary shells exploding in the timber stands of the Pacific Coast could easily set off numerous raging forest fires. With experienced firefighters and other able-bodied men engaged in the armed forces, the home communities had to deal with the forest fires as best they could. Protection of these forests became a matter of national importance, and a new idea was born. If people could be urged to be more careful, perhaps some of the fires could be prevented” (Smokey's Vault, n.d.,b).

In response, the Forest Service organized the Cooperative Forest Fire Prevention Campaign with the help of the Wartime Advertising Council. Posters and slogans were created, including *Forest Fires Aid the Enemy*, and *Our Carelessness, Their Secret Weapon*. “By using catchy phrases, colorful posters and other fire prevention messages, the Advertising Council suggested that people could prevent accidental fires and help win the war” (Smokey's Vault, n.d.,b).

While the creation of the Smokey Bear campaign was originally an ad hoc war initiative, the need for general emphasis on forest fire prevention was immediately recognized. On August 9, 1944, the first poster of Smokey Bear was prepared, which depicted a bear pouring a bucket of water on a campfire rather than a fire ignited by

enemy shells. “In 1952, Smokey Bear had enough public recognition to attract commercial interest. An Act of Congress passed to take Smokey out of the public domain and place him under the control of the Secretary of Agriculture. The Act provided for the use of collected royalties and fees for continued education on forest fire prevention” (Smokey’s Vault, n.d.,c). The Smokey Bear wildfire prevention message is clearly as vital today as it was in 1944. More than 60 years later, the public is reminded of their role in forest fire prevention.

Smokey’s success can be attributed to three factors. First, the campaign is centralized with one agency overseeing all operational efforts. Centralization ensures that the forest fire prevention message is consistent and timely, unlike current preparedness programs that are spread across multiple agencies and levels of government. Television and roadside ad campaigns have been utilized to ensure visibility, whereas current programs require interested individuals to research preparedness initiatives via multiple websites. Third, the Smokey Bear campaign has not changed or diminished with the changing threat environment. Rather, Smokey Bear has become a national icon espousing one consistent message. For these same reasons, other programs have also been successful, including the Safety Belt Awareness campaign, McGruff the Crime Dog, and Mothers Against Drunk Driving.

2. Safety Belt Awareness

In 1946, the Ad Council began to promote a safety belt education campaign; however, national level emphasis was not placed on this campaign until 1985 when the National Highway Transportation Safety Administration (NHTSA) partnered with the Ad Council, bringing the seat belt message to all homes. The initial goal of the campaign was to promote seat belt use as a means of saving lives, which in turn would result in cost savings for employers and taxpayers (Children’s Safety Network National Injury and Violence Prevention Resource Center. n.d.). The campaign, with initial emphasis on adult safety belt use, grew to encompass the use of child safety seats, and finally booster seat requirements for younger children. This campaign provides an example of a successful

long-term initiative due to its clear objectives, methods of promotion, and enforcement as well as evaluation. During testimony, the Honorable Jeffery Runge, administrator for the National Highway Traffic Safety Administration stated,

The National Occupant Protection Usage Survey conducted in June 2003 recorded an unprecedented 79 percent safety belt use rate... The reason for this unprecedented increase is clear. Click It or Ticket, NHTSA's priority safety belt campaign, reached new levels of implementation... Click It or Ticket works because it is high visibility law enforcement activity combined with public awareness. (Congress, House of Representatives, Committee on Appropriations, 2004)



Crash Test Dummies
Vince and Larry

Like most Ad Council campaigns, the Safety Belt Awareness campaign also used icons to promote the message. In this case, two crash test dummies known as Vince and Larry brought the message into the homes of many Americans with the slogan, "You can learn a lot from a dummy...Buckle your safety belt." Similar to the Smokey Bear campaign, the Safety Belt Awareness message remained consistent over the years, altering only the target of the information. For example, in 1995, the campaign shifted focus to parents and caregivers, encouraging safety belt usage for adults and children no matter how short the trip. Likewise, in 1999, the campaign shifted focus to those who only wore safety belts on a part-time basis with the message, "Buckle Up Always." Lastly, in 2004, the campaign targeted those with small children, encouraging the use of booster seats (Ad Council, n.d.).

3. Analysis of Successful Preparedness/Prevention Programs

From a comparison standpoint, the Safety Belt Awareness program has an enforcement element to it, which has significantly contributed to its success. While the main incentive for states to pass mandatory seatbelt legislation was the highway funding they would receive by doing so, the American population also benefited by the notable increase in safety belt usage thus resulting in a significant decrease in injuries (National Highway Transportation Safety Administration, n.d.,a). Recognizing that some

populations have lower than average safety belt and child safety seat use rates than the general population leading to higher incidence rates for crashes and fatalities, the NHTSA conducted special studies on these topic areas. Specifically, the NHTSA looked at Safety Belts and Hispanics as well as safety belt usage among teens, African Americans and rural truck drivers (National Highway Transportation Safety Administration, n.d.,b). Targeting rural drivers alone resulted in a significant increase in seat belt usage in 15 of the 16 communities, with an average of 13.4 percent. The highest percentage of change was found in Manistique, Michigan at 21.6 percent. Unlike civil defense related surveys, communities that participated in this initiative conducted both pre- and post-observational surveys (National Highway Transportation Safety Administration, n.d.,c).

The success of the Smokey Bear and Safety Belt Awareness campaigns was mainly found in their clear objectives, understanding of their target audiences, their simple and consistent message, and their visibility. Moreover, and directly on point with this thesis is the recognition that the message must be brought directly to children to instill fire and seat belt safety as a basic human value, despite the potentially gruesome nature of the subject matter. In a statement by Sheila Burgess, director of the Massachusetts Highway Safety Division, she states,

By increasing knowledge about the dangers of driving without a safety belt, we hope to change societal norms, individual attitudes and behaviors about traffic safety, and make safety belt use a priority among teens and community members. (Dover-Sherborn Press, 2008)

Both pre- and post-studies were conducted showing an impressive improvement in seat belt usage in Massachusetts since the program was brought to nearly 50 schools. Initially, Massachusetts had one of the lowest rates of seat belt usage rates in the nation. In 2004, Massachusetts teen drivers buckled up only at a rate of 57 percent, which increased to 69 percent in 2007. While this is a significant increase, the national average was 82 percent. On April 15, 2008, members of Dover Sherborn High School's "Students Against Destructive Decisions" program conducted an on-campus safety belt observation

finding that 90 percent of drivers, 85 percent of front seat passengers, and 50 percent of backseat passengers were belted. When students were asked why they wore seatbelts, some of the best answers were the following.

- “because I do not want to die in a car accident”
- “to be a good example for others”
- “because my parents are doctors, and I see what happens when you do not”
- “to save my life!”

The high school plans to continue educating the public through ongoing safety belt observations, posters, announcements and other projects, with the ultimate goal of 100 percent seat belt compliance.

As in Massachusetts, numerous efforts throughout the nation to educate children in schools have been tried, including *Battle of the Belt*, a joint initiative by the Missouri Chapter of the American College of Emergency Physicians, the Missouri Coalition for Roadway Safety and American Family Insurance, in which high schools throughout Missouri compete to increase safety belt use among students (Missouri Coalition for Roadway Safety, n.d).

Likewise, Phoenix, Arizona initiated the *Give Kids a Boost* campaign, to increase knowledge and raise awareness of the importance of booster seats by educating parents, teachers, Head Start personnel and targeted children. “This approach was coupled with a school-based, bilingual education program (Spanish/English) for children in Head Start and kindergarten classes in a high-risk, low-income, culturally diverse community within the city. The provision of free booster seats to low-income families was an integral part of this project” (U.S. Department of Transportation, n.d.). Again, efforts will include baseline studies as well as follow-up studies to gauge success.

Sadly, some of the more robust and heartfelt campaigns are the result of tragedy such as the “Klick-It for Kelsey” program in Minnesota started by high school children in memory of their 18-year-old classmate Kelsey Dybdahl, who was thrown from a vehicle during a collision in which she was not wearing a seatbelt. “Besides raising awareness, the group is asking Minnesota lawmakers to make the failure to wear a seat belt a primary

offense, which would allow law enforcement officers to write tickets if they observe an unbelted driver or passenger. Under current state law, officers only ticket drivers for not wearing seat belts if they have already stopped the motorist for another infraction” (*St. Paul Pioneer Press*, 2005). The importance of sheltering children from exposure to disturbing topics has clearly been outweighed by the program’s goal of saving just one life. In Alexandria, Minnesota where Kelsey was a student, high school juniors and seniors watched a re-enactment of the aftermath of a car crash, complete with law enforcement officers, emergency medical personnel as well as a funeral director.

Clearly, through properly structured programs such as Smokey Bear and Safety Belt Awareness, children can educate each other as well as the greater citizen population thus reducing the likelihood of injury or death. Elements of such programs should be considered in the U.S.’s efforts to create a culture of citizen preparedness.

IV. ENGAGING U.S. CITIZENS IN PREPAREDNESS: THE INGREDIENTS

A. INTRODUCTION

This thesis argues that while the United States has actively attempted to engage citizens in preparedness since at least World War I, initiatives have not contained the proper ingredients to generate and sustain a long-term culture of preparedness. This argument was supported by survey data that routinely demonstrated the public's lack of knowledge regarding preparedness programs. More compelling was the survey data that confirmed citizens were not actively taking measures to prepare despite having been a victim of mass disaster in the past such as 9/11 or Hurricane Katrina, and regardless of the fact that they may be a victim again in the future. A variety of case studies were conducted to identify best practices that could be implemented in the United States for building successful programs as well as to discover elements of the ideal learning environment. Through this research, the following ingredients for a successful preparedness program were identified.

- One lead agency
- One consistent message delivered by a trusted entity
- One dedicated media station
- Robust ad campaigns
- Mandatory K-12 preparedness curricula
- Baseline and follow-up studies

While the success or failure of a preparedness program hinges on the achievement or deficit of the totality of these elements, this does not imply that all elements must occur at once or from the beginning. Rather, the elements taken in part serve to target diverse audiences and therefore, as long as all individuals, families and communities are eventually educated, program developers can phase in the different elements to achieve the stated objectives. For example, developers may begin by airing advertisements simply designed to get the adult population thinking about the concept of preparedness

without actually providing specific instructions or recommendations. This could occur through daily television ads, billboards, flyers, pop-ups, and so on, perhaps like an advertisement for an upcoming movie. While the end objective is to educate and change behavior, citizens could be eased into the specifics, thus avoiding information overload. A phased approach to citizen preparedness was also recommended by Paula Bloom (2007), Naval Postgraduate School student, wherein she states,

A phased approach works well and may even be preferable. Since information campaigns must increase knowledge, change attitudes, and change behaviors, a phased approach to achieve all three makes sense, with one phase building up to the next. For example, once citizen knowledge is increased, the campaign works to change attitudes towards a subject. The final phase changes citizens' fundamental behaviors to be more prepared.

Ms. Bloom also argues that preparedness campaigns cannot be ad hoc or sporadic. Rather, the preparedness message must be delivered on a regular basis, with the frequency and length determined by how quickly the message educates and changes behavior; the methods of delivery; and the ability of the audience to receive the message. One target rich environment capable of satisfying these requirements is the K-12 educational system where younger children tend to trust teachers; where options for expanding or reducing the frequency of any instruction are possible; where the audience is able to interact with those providing the information, to ask questions, voice concerns, and provide feedback; and where the intended audience is routinely available-virtually five days per week for nine months each year. This chapter provides compelling arguments in support of K-12 preparedness curricula, exposes the reader to a variety of potential concerns associated with such an approach, and offers general recommendations for curriculum content.

B. MANDATORY K-12 PREPAREDNESS CURRICULA: SUPPORTING ARGUMENTS

1. Children Teaching Adults

This thesis suggests that by incorporating mandatory preparedness curricula in the K-12 educational system, long-term success can be realized. Instilling preparedness as a core value beginning at a young age when political bias has yet to be fully appreciated coupled with a child's ability to broker the preparedness message may ensure that our future generations view preparedness as a fact of life thus breeding a sense of civic duty. Furthermore, history has shown that the success of initiatives such as Smokey Bear, Safety Belt Awareness and drunk driving - either still running after 20 or more years, or ran for long periods - is partly due to the fact that their messages were brought to schools. While some may argue that children do not have the mental capacity to be charged with such responsibility, today's environment is filled with examples of the U.S. population's realization that children are not only capable of helping and encouraging others, but have taught and continue to teach adults valuable skills, most notably, the use of modern technology. The following statements, cartoons and television advertisements best illustrate this point:

Many county Extension offices hold an annual agricultural safety day for children to strengthen the overall effort of reducing risk. This direct approach uses the education of children to educate adults...

Jeremy Maness
Mississippi State University *Extension Coordinator*

...Apparently, having children was a motivator, whether out of parental concern for their offspring or children's delivery of the civil defense message.

DeMoine Iowa Study

Childhood is the perfect time to lay the foundation for a life dedicated to loving and helping others.

Jomie Goerge (2001)
Family Matters

We need to recognize young people as potential resources.” Kids have a “right to participate in the decisions that affect their lives and a responsibility to serve their communities.

Karen Sternheimer
It's Not the Media

Encourage participation as a family in volunteering or community service. This will help children develop a sense of moral obligation to the world around them.

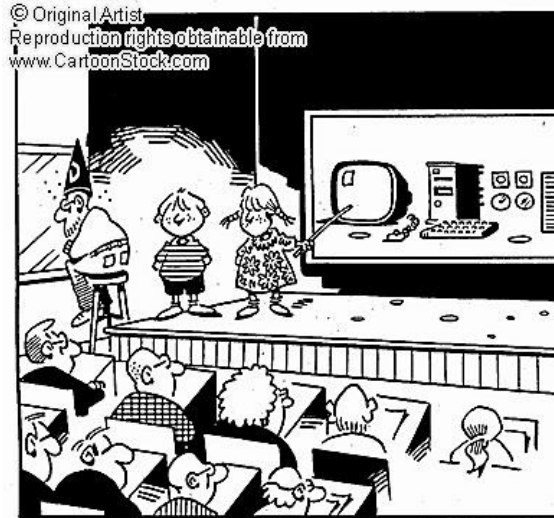
Boys Town Website (n.d.)

Given children’s information brokering role and also the importance of the community as cultural facilitators, it was determined that the resource be developed in a culturally inclusive manner for teachers of young people in Years 8 to 10. In this way, the resource could be used to help build the capacity of culturally diverse communities to mitigate and respond to emergencies.

Australian Government Attorney General’s Department
Emergency Management Australia (n.d.,a)

CARTOONS





www.CartoonStock.com

TELEVISION ADVERTISEMENT

Verizon Wireless Commercial (2008)



Verizon Wireless Commercial (2008)



Male Child: "Take a picture, crop it, and post it to the web, alright?"

Female Child: "And Mom, it's called a Bluetooth headset, okay?" (While showing where headset is located)

Male Child: "Any trouble at all, call us, you know..."

Female Child: "...or text" (While showing keys)

Male Child: "Bye!" (As parents enter the back seat of a vehicle)

Female Child: "Bye!"

Female Child: "I'm so proud of them!" (Said to her brother as parents turn around with reluctant expressions on their faces -waving while the car drives away)

<http://www.youtube.com/watch?v=KA1u75HZ56Y&feature=related>

The U.S. National Center for Educational Statistics estimated that approximately 74,230,000 children are attending either public or private schools this 2008-2009 school year (U.S. National Center for Educational Statistics, 2008) Not considering the additional children that are being home schooled, the population of children in school represents over 24% of the total U.S. population, currently estimated at 305,105,227. If each child was responsible for educating only three additional citizens, whether they are family members, those within their community or perhaps others who are completely unknown to them, nearly the entire U.S. population would have some exposure to the concepts of citizen preparedness. One best practice noted in both the Israeli as well as the Australian model was the emphasis placed on kids sharing knowledge with families. Specifically, in Israel, children have lessons that they must take home and work on with their families. Likewise, in Australia under the Families Preparing Together curriculum, students create a family evacuation plan that is displayed around the classroom for the benefit of all students. Students are also encouraged to display their plans in a prominent place at home, making sure that every member of the household is aware of what to do in case of an emergency.

We have seen instances where children are not only providing education on certain topics such as safety belt awareness, but are actually assisting in enforcing laws to further their cause. For example, as cars pulled into area high schools, children were conducting first hand observations to document the percentage of students wearing seatbelts. Students who were not in compliance were given literature about the importance of Safety Belt use. Survey data revealed that these efforts resulted in an overall increase in compliance.

Another example, this one involving a local boy, Landon Wilburn, 11, who grew tired of speeders zipping through his subdivision and decided to address the issue on his



Landon Wilburn

own. The youngster, who used to shout at speeders to slow down as they drove through the Stone Lakes subdivision in Louisville, now dons himself in a reflective vest and a bicycle helmet, armed with an orange Hot Wheels brand radar gun and a flashlight with a built-in siren. As traffic zips by, Wilburn points and records the actual speed of passing traffic. One

resident commented on how pleased he was to watch cars locking up their brakes when they saw him (Santo, 2008). Through these kinds of efforts, children are already changing attitudes.

2. Teacher Credibility

Another element of a successful long-term campaign involves the delivery of one consistent message by a trusted entity. Accordingly, advertisements often use celebrities, subject matter experts, government officials, coaches, preachers, or any other icon who has personal experience with the subject to deliver the message. For example, during the 2001 Anthrax attack, the Director of the Centers for Disease Control and Prevention (CDC) addressed the American public to educate citizens on what Anthrax is, the means by which you can contract it, signs and symptoms of Anthrax exposure, methods of treatment, and prognosis. While several other entities had an inherent role in the Anthrax attacks including the Federal Bureau of Investigation as the lead investigative entity, Department of Health and Human Services, the U.S. Postal Inspection Service, U.S. Secret Service, and so on, the public would not have tolerated learning about potential health risks from a criminal investigative agency any more than they would tolerate a Chief Executive Officer of a hamburger chain briefing the threat posed by al Qaeda. This was seen after Hurricanes Katrina and Rita when the American public no longer trusted the Federal Emergency Management Agency (FEMA) and therefore, would not listen to FEMA's recommendations.

According to Janet Weiss and Mary Tschirhart (1994) who reviewed over 100 campaigns to identify steps for successful campaigns, spokespersons must have credibility with the audience to affect behavior. It has been long established that the five entities most trusted by children include parents, religious figures, police officers, teachers and coaches. Accordingly, by utilizing teachers to educate children via preparedness curricula, the element of delivery by a trusted entity is satisfied. Experts also suggest that there are six ways in which children learn values and beliefs, one of which includes the school setting. "Through friends, extended family, books, TV and the experiences they have in their community, children absorb values and societal norms." As such, by incorporating preparedness curricula in the K-12 educational system, children may absorb preparedness as a value rather than simply an ad hoc exercise. Multiply that one value by 74,230,000 children and a societal norm may likely be established.

3. Methods of Learning

There are three different styles of learning, including auditory, visual, and kinesthetic. Auditory learners sit where they can hear, but needn't pay attention to what is happening in front; may not coordinate colors or clothes, but can explain why they are wearing what they are wearing; hum or talk to themselves or others when bored; acquire knowledge by reading aloud; and remember by verbalizing lessons to themselves (if they do not, they have difficulty reading maps or diagrams or handling conceptual assignments like mathematics). On the other hand, visual learners take numerous detailed notes; tend to sit in the front; are usually neat and clean; often close their eyes to visualize or remember something; find something to watch if they are bored; like to see what they are learning; benefit from illustrations and presentations that use color; are attracted to written or spoken language rich in imagery; prefer stimuli to be isolated from auditory and kinesthetic distraction; find passive surroundings ideal. Lastly, kinesthetic learners need to be active and take frequent breaks; speak with their hands and with gestures; remember what was done, but have difficulty recalling what was said or seen; find reasons to tinker or move when bored; rely on what they can directly experience or

perform activities such as cooking, construction, engineering and art help them perceive and learn; enjoy field trips and tasks that involve manipulating materials; sit near the door or someplace else where they can easily get up and move around; are uncomfortable in classrooms where they lack opportunities for hands-on experience; and communicate by touching and appreciate physically expressed encouragement, such as a pat on the back.

What entity knows more about different learning styles and what same entity provides the opportunity to instruct in a manner conducive to each style? Of course, the answer is schools. Weiss and Tschirhart (1994) argue that in order for an ad campaign to be effective, the instructional method chosen must reflect the specific community and how information is best received in that community. In this particular example where emphasis is placed on targeting children, school instruction is clearly the best means. Other possible methods of instruction such as television advertisements, Internet sites, DVDs, brochures, annual preparedness events, and other ad hoc initiatives on their own do not offer similar abilities and therefore, would not be as effective as a classroom setting. This is not to suggest that these other methods should not be employed as well. In fact, Weiss and Tschirhart firmly believe that a campaign is more effective when multiple methods of instruction are utilized simultaneously. It is therefore recommended, that when building preparedness curricula, developers should include a variety of media such as movies, cartoons, Internet exercises, video games, computer programs, etc., to be used during classroom instruction and exercises.

4. Availability

As previously stated, schools are one of only a few locations where the same group of individuals routinely meet. The opportunity to have one of the largest targeted audiences in the same location and over an extended period of time – virtually five days per week for nine months each year – is invaluable. Clearly, schools offer such opportunities whereas other methods including television advertisements, Internet sites, annual preparedness events, and other ad hoc initiatives do not.

C. ARGUMENTS AGAINST IMPLEMENTATION

1. Indoctrination

Since its inception, the Joppatowne Homeland Security and Emergency Management Program has met with much opposition from citizens claiming that it only serves to indoctrinate children with the government's pro-war posture. The following quotes, taken from news articles and corresponding blogs, depict this concern:

Critics see the school as a troubling landmark: a public school, possibly the first of many, that is an active participant in the war on terror. Jonathan Zimmerman, director of New York University's History of Education Program, says that if it offered students an "intellectually curious" curriculum, "I'd send my daughter there. But my fear is that they will instead teach a series of predigested truths about keeping our country safe."

C. Colin, (2007)
Mother Jones website

This confirms, if there was still any doubt, that public education is not about intellectual development and independent thought. It is about indoctrination. This school embraces that fact without admitting it. The 'market driven' aspect of the school's curriculum ensures the prevalence of "predigested truths." This is absolutely shameful and embarrassing.

Anonymous blogger (2007)
Mother Jones website

No Child left behind tags all the kids so that they will not escape the draft. Now they are working to brainwash our kids over to their agenda for the "war on terror."

Anonymous blogger (2007)
Mother Jones Website

These kids are being indoctrinated by a govt entity to believe that the administration's foreign policy is correct, kinda like the very “terrorists” you and I dislike so much. Suicide bombers, unlike run of the mill terrorists from decades past, are responding to our multi-decade occupation of their sacred soil as well as our blind support for Israel. This is why al Queda recruits and trains people so effortlessly. This school perpetuates the stupidity that is getting our soldiers killed, is devastating Iraq, is driving us to bankruptcy and is making us less safe.

M. Hall, 2007
USA Today

Despite these concerns, the program has been attracting the attention of educators and school districts around the country. The director of the pilot program, Frank Mezzanotte, reported that he had already been contacted by individual schools and education departments in more than a half-dozen states including both inherently liberal as well as conservative to moderate states such as California and Florida (Hall, 2007). This is significant considering the issues raise. Other educators have applaud the school for finding a unique solution designed to prepare kids for an expanding job market as well as to allow kids to connect what they learn in school to what is happening in the real world. Likewise, West Virginia governor Bob Wise, head of the Alliance for Excellent Education stated, “This sounds to me like it has all the earmarks of what keeps young people in school.” He continued, “It gives them the skills necessary for the modern workplace” (Hall, 2007).

According to Lise Foran of Anne Arundel County Public Schools in Maryland, Next fall, Meade High School will begin a Homeland Security program. “We’re following in Joppatowne’s footsteps,” said Foran (Hall, 2007). While the Joppatowne program is still in its infancy stage, it is likely that it represents the beginning of an emerging trend for future generations despite opposition.

2. Can Education Cause Fear?

Throughout history, concerns regarding exposing children to scary topics such as terrorism or mass disaster have been raised by a variety of individuals including parents and psychologists. Accordingly, several studies were conducted, concluding that

elementary aged children were more likely to be excited than frightened during disaster; whereas, adolescents feared more – attributed to the fact that they were old enough to understand the dangers of an attack, but not able to do anything about it. Overall, children responded largely as the adults about them responded” (Ridgway, n.d.). If parents remain calm, children will be calm. If parents are sensible, children will be sensible” (Davis, 2007). Similar findings were apparent in studies conducted in the United States, United Kingdom, and in Israel.

As Breckenridge and Zimbardo (2007) pointed out, however, one thing that must be considered is the manner in which the information is presented. For example, if the message contains only dire information and is not balanced with recommendations for reducing risks, it may instill overwhelming fear and hopelessness.

The good news is the audience will likely hear the message, since, human beings are much more powerfully influenced by negative information than by positive...The greater emotional force of negatively valenced materials will result in a negativity bias that pervades human perception, impression formation, attention, judgment and decision making, frequently in ways that appear irrational. Negative information tends to be construed as more informative and influential than positive data...Research suggests that negative messages indicating the presence of risk are evaluated as more trustworthy than positive messages communicating the absence of risk. (pp. 16-17)

So, while it is important to educate, the message must be presented in a fashion that will bring appropriate action. “Panic is caused by fear, and fear is a consequence of ignorance. Thus the solution to the problem of panic is public information about the effects...and what can be done to prepare for them” (Oakes, 1994, p. 34). Therefore, wherever possible, curriculum developers as well as teachers should balance messages with more positive messages that may put the situation into perspective, such as the fact that the risk of being killed by a terrorist attack is no more likely than being struck by lightning. Fear could be further reduced by providing mitigating actions for citizens to reduce their exposure to the threat at hand. While educating the public on specific facts, messages should also encourage the audience that their efforts for mitigating the risk can make a difference (Breckenridge & Zimbardo, p. 16).

D. CURRICULUM RECOMMENDATIONS

This thesis simply offers recommendations for particular elements to be contained within K-12 preparedness curricula to ensure success; however, it does not begin to explore specific instruction or exercises. In summary, the following elements must be present to ensure success.

- Curricula must be mandatory
- Curricula must be standardized throughout the nation yet scalable
- Curricula must contain consistent messages
- Curricula must be age appropriate
- Curricula must require family involvement
- Curricula must ensure compatibility with all learning styles
- Curricula must include practical exercises to ensure concepts can be applied
- Curricula must encourage original thought
- Curricula must emphasize cultural diversity
- Negative information must be balanced with positive information

The following recommendations consist of general topic areas that should be incorporated in K-12 curricula, followed by more specific descriptions of instruction and activities within each category.

1. General Topics

- Natural and Manmade Hazards Including Terrorism
- First Aid
- Alarms and Response
- Agency Roles
- Technology
- Communication
- Family Preparedness
- Psychology

- Health
- Cultural Diversity

2. Specific Topics

a. Natural and Manmade Hazards Including Terrorism

Instruction on hazards should not only include descriptions of each type of disaster, but also education on the possible consequences such as power outage, communication barriers, injury, and danger including falling glass and broken windows, collapsing walls, falling brick from chimneys and walls, downed power lines, overturned furniture, broken gas lines, toxic fumes, damage to bridges, highways and railroad tracks, fires from spilled gasoline and other chemicals, and so on. Protective measures such as “Stop, Drop and Role” and “Drop, Cover and Hold On” techniques should also be exercised. Australia’s curriculum includes an excellent exercise wherein students consider a particular emergency situation within a particular community, and prepare an effective TV or radio advertisement targeting a specific group of individuals. A similar type of exercise is recommended for U.S. educational programs.

The following represents a list of suggested hazard topic areas:

- Fire
- Earthquake
- Tornado
- Hurricane
- Flooding
- Tsunami
- Drought
- Volcanic Eruption
- Landslide and Mudflow
- Avalanche
- Blizzard
- Heat Wave

- Epidemic
- Famine
- Terrorism
 - Biological
 - Chemical
 - Radiological
 - Nuclear
 - Explosives
 - Motivation
 - General Awareness/Vigilance
- Hazardous Material and Decontamination

b. First Aid and Health

Recommendations for First Aid and Health instruction span from simple cleanliness to life saving techniques such as CPR as listed below. Additionally, the DHS Citizen Corps Family and Children Preparedness website offers links to *Risk Watch*, an injury prevention program, and *Save a Life for Kids Program*, a simplified first aid training program for children ages 4 to 12, which should also be considered for inclusion.

- Personal Protection
- Cleanliness
- Causes and prevention of disease
- Triage
- Survival Techniques
- Limited Search and Rescue
- CPR

c. Alarms and Response

Alarms and response offers an excellent opportunity to teach especially younger children how to dial and communicate with 911 operators while stressing the importance of only dialing 911 in the event of an emergency, proper response to fire and

severe weather warning alarms, how to maintain order, how to operate items such as flashlights, and can openers, and how to turn off the stove, lights and furnace in the event of an emergency. Education should include hands-on assignments that children can conduct with their families such as identifying escape routes and shelter areas in the home, identifying and posting emergency numbers throughout the house, fire extinguisher and flashlight use, and so on. Assignments should include exercises wherein children describe what they would do in the event of an emergency requiring evacuation/sheltering, as well as practical exercises wherein children go through the motion of dialing 911 followed by the steps they would take in an emergency situation. Suggested topics include the following:

- Alarms
 - Fire
 - Severe Weather Warning
- 911 and 0 (Operator)
 - Dialing
 - What to say
 - Remain calm
 - Speak slow
 - Listen
 - Follow instructions
 - Do not hang up until after operator
 - 911 is only for emergencies
- Listen, Order, Follow Instruction
- Operation of Items
 - Flashlight
 - Fire extinguisher
 - Can opener
 - Turn off stove
 - Turn off lights
 - Turn off furnace

d. Agency Roles

The Joppatowne High School curriculum provides excellent instruction regarding the roles and responsibilities of first responders, as well as the various federal, state and local agencies. Education includes practical exercises wherein students act in the role of the incident commander, making decisions regarding which agencies to contact, what resources are required and which assets to deploy. It is recommended that this area of instruction be modeled after Joppatowne and include instruction in the following areas:

- Roles of Emergency Responders
- Roles of Federal Agencies
- Roles of Supporting Federal Agencies
- Inter-relationship of Local, State and Federal Agencies

e. Technology

Technology curricula should include instruction on intelligence collection capabilities as well as technology developed to protect borders and reduce the likelihood of disaster. The following list provides suggestions for specific topics, however, as new technology is developed, curricula should be modified to include current technology.

- Intelligence gathering techniques
 - Signals Intelligence (SIGINT)
 - Measurement and Signature Intelligence (MASINT)
 - Human Intelligence (HUMINT)
 - Communications Intelligence (COMINT)
 - Geospatial Intelligence (GEOINT)
 - Open Source Intelligence (OS-INT)
 - Other
- Monitoring/Identifying Technology
 - Closed Circuit Television (CCTV)
 - Radio Frequency Identification (RFID)

- Biometrics
- Chemical, Biological, Radiological, Nuclear, Explosive detection devices

f. Communication

Curricula addressing communication should cover several areas including the physical aspect of what to do in case of a communication outage as well as the delivery of the preparedness message. The following areas of instruction should be considered.

- Instruction on the various physical modes of communication and what to do in the event of a communication failure
- Communicating to different cultures – messages in multiple languages
- Methods for reaching all citizens including children, adults, the elderly, the infirm, the homeless, different cultures, and so on
- Balancing negative messages with positive information
- Ensuring honesty in the message

g. Family Preparedness

Citizen preparedness programs under DHS, FEMA, the Red Cross as well as other countries including Israel, the United Kingdom and Australia are consistent as it relates to their suggestion for preparing family plans, emergency kits, and being informed. It is recommended that curricula include further instruction in these areas and include practical exercises wherein students prepare such items with their families and discuss their findings in a class setting.

- Family Plans
- Emergency Kits
- Be Informed

h. Psychology

Studies have shown that children will react in accordance with the reaction of their parents during disaster. If their parents are calm, they will be calm. This area of

instruction should encourage children to discuss their fears and stress the importance of keeping negative messages balanced with positive information. More importantly, assignments should include take home information for parents that outlines steps for making disaster as least frightening as possible for a child. Chapter III of this thesis lists a series of items to mitigate fear in children provided by Dr. Batya Ludman, an Israeli licensed clinical psychologist specializing in trauma. While this list was developed in response to shelter experiences, items can be modified to be relevant in all situations and should be included in the K-12 curricula.

i. Cultural Diversity

Curricula addressing cultural diversity should include instruction on communicating with different cultures via multiple languages and recognizing cultural sensitivities. Australia's curriculum includes an excellent exercise wherein students consider a particular emergency situation within a particular community, and prepare an effective TV or radio advertisement targeting a specific group of individuals. A similar type of exercise is recommended for U.S. educational programs to address cultural diversity. This same curriculum was recommended to assist students in learning about the various hazards and how each hazard may affect a particular community.

Preparedness curricula from countries including Israel and Australia were outlined in detail to provide curriculum developers examples from other sources. Likewise, examples of historical curricula were provided to allow developers a glimpse into former school initiatives, albeit ad hoc in nature. These illustrations are offered in the hope that this thesis can serve as the beginning of continued efforts to incorporate mandatory preparedness curricula in the K-12 educational system.

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V. CONCLUSION

A. INTRODUCTION

Beginning with World War I, the United States initiated a series of citizen defense and preparedness programs designed to mitigate potential harm to citizens from threats such as nuclear attack, and to leverage citizens' skills as an important force multiplier. As a result of the terrorist attacks of 9/11, citizen preparedness was once again emphasized by the highest levels of government, and memorialized in current national strategies. Through case studies and general research, elements necessary for a successful citizen preparedness campaign were identified and include the following.

- One lead agency,
- One consistent message delivered by a trusted entity,
- One dedicated media station,
- Robust ad campaigns,
- Mandatory K-12 preparedness curricula, and
- Baseline as well as follow-up studies.

While the success or failure of a preparedness program hinges on the achievement or deficit of the totality of these elements, this does not imply that all elements must occur at once or from the beginning. Therefore, this thesis predominantly focused on one of the elements, empowering children to lead change by incorporating citizen preparedness curriculums in the K-12 educational system.

B. FINDINGS

It has been well established that preparedness campaigns cannot be ad hoc or sporadic in nature. Rather, the preparedness message must be delivered on a regular basis, with the frequency and length determined by how quickly the message educates and changes behavior; the methods of delivery; and the ability of the audience to receive the message. One target-rich environment capable of satisfying these requirements is the K-12 educational system where younger children tend to trust teachers; where options for

expanding or reducing the frequency of any instruction are possible; where the audience is able to interact with those providing the information, to ask questions, voice concerns, and provide feedback; and where the intended audience is routinely available - virtually five days per week for nine months each year. Furthermore, instilling preparedness as a core value beginning at a young age when political bias has yet to be fully appreciated coupled with a child's ability to broker the preparedness message may ensure that our future generations view preparedness as a fact of life thus breeding a sense of civic duty.

Through extensive research, the following analytical conclusions were made.

- Children *can* teach adults
- Teachers *are* trusted entities
- Schools *can* instill values in children
- Education *can* rise above indoctrination
- Children *are* tough and *can* handle scary topics
- Children *can* lead change

1. Children Can Teach Adults

Today's environment is filled with examples of the U.S. population's realization that children are not only capable of helping and encouraging others, but have taught and continue to teach adults valuable skills. This is evidenced by the wide variety of media including articles, cartoons as well as television advertisements depicting children instructing adults on how to use modern technology such as computers or the latest cellular telephone. In another cartoon, a child is shown chairing an executive level corporate meeting. Even more compelling is the fact that other countries have also recognized the valuable role children can play in homeland security preparedness. In the words of the Australian Government, "Given children's information brokering role... the resource could be used to help build the capacity of culturally diverse communities to mitigate and respond to emergencies" (Australian Government, n.d.) According to census data, the population of children in public and private school represents over 24 percent of the total U.S. population. If each child was responsible for educating only three

additional citizens, whether they are family members, those within their community or perhaps others who are completely unknown to them, nearly the entire U.S. population would have some exposure to the concepts of citizen preparedness.

2. Teachers are Trusted Entities

Findings from several studies agree that campaign spokespersons must have credibility with the audience to affect behavior. It has long been established that the five entities most trusted by children include parents, religious figures, police officers, teachers and coaches. Accordingly, by utilizing teachers to educate children via preparedness curricula, the element of delivery by a trusted entity is satisfied.

3. School Can Instill Values in Children

Likewise, experts agree that there are six ways in which children learn values and beliefs, one of which includes the school setting. “Through friends, extended family, books, TV and the experiences they have in their community, children absorb values and societal norms” (Pregnancy and Parenting, n.d.). As such, by incorporating preparedness curricula in the K-12 educational system, children may absorb preparedness as a value rather than simply an ad hoc exercise. Multiply that one value by 74,230,000 children and a societal norm may likely be established.

4. Education Can Rise Above Indoctrination

Immediately following the announcement of Joppatowne High School’s Homeland Security and Emergency Management Program, several citizens voiced their concerns regarding the potential for such a program to indoctrinate children with the government’s pro-war posture. Despite these concerns, several schools and education departments around the country have showed an interest in the program, including schools located in inherently liberal states. Other educators have applauded the school for finding a unique solution designed to prepare kids for an expanding job market as

well as to allow kids to connect what they learn in school to what is happening in the real world. While the Joppatowne program is still in its infancy stage, it is likely that it represents the beginning of an emerging trend for future generations.

5. Children are Tough and Can Handle Scary Topics

Throughout history, questions have been raised regarding the potential negative effects of exposing children to scary topics such as terrorism and mass disaster. Accordingly, numerous studies have been conducted, concluding that overall, children respond largely as the adults about them respond. If parents remain calm, children will be calm. If parents are sensible, children will be sensible. Similar findings were apparent in studies conducted in the United States, United Kingdom, and in Israel. One thing that must be considered, however, is the manner in which the information is presented. For example, if the message only contains dire information and is not balanced with recommendations for reducing risks, it may instill overwhelming fear and hopelessness. Therefore, wherever possible, curriculum developers as well as teachers should balance negative information with more positive messages that may put the situation into perspective.

6. Children Can Lead Change

Chapter I of this thesis provided two primary research questions to be answered.

- Can citizen preparedness be stimulated by incorporating homeland security preparedness curricula into the K-12 educational system?
- Are there psychological risks associated with exposing children to scary topics such as terrorism and mass disaster?

The answer to both questions is yes. By exploring historical and current citizen preparedness campaigns, other country approaches to citizen preparedness, and the elements of successful long-term initiatives, ingredients for a successful preparedness campaign were identified. One critical ingredient included incorporating preparedness curricula in the K-12 educational system. This element was based on the target rich environment offered by schools including the fact that younger children tend to trust teachers; options for expanding or reducing the frequency of any instruction are possible;

schools understand and can offer a variety of teaching methods; the intended audience is able to interact with those providing the information, to ask questions, voice concerns, and provide feedback; and the intended audience is routinely available - virtually five days per week for nine months each year.

In order to be successful, however, the following elements must be present.

- Curricula must be mandatory
- Curricula must be standardized throughout the nation yet scalable
- Curricula must contain consistent messages
- Curricula must be age appropriate
- Curricula must require family involvement
- Curricula must ensure compatibility with all learning styles
- Curricula must include practical exercises to ensure concepts can be applied
- Curricula must encourage original thought
- Curricula must emphasis cultural diversity
- Negative information must be balanced with positive information

Several examples exist within today's society, suggesting that children are not only capable of helping and encouraging others, but have taught and continue to teach adults valuable skills. Census data estimates that the population of children enrolled in public and private schools represents over 24 percent of the total U.S. population. If each child was responsible for educating only three additional citizens, whether they are family members, those within their community or perhaps others who are completely unknown to them, nearly the entire U.S. population would have some exposure to the concepts of citizen preparedness. Children can lead change.

Preparedness curricula from countries including Israel and Australia were outlined in detail to provide curriculum developers examples from other sources. Likewise, examples of historical curricula were provided to allow developers a glimpse into former school initiatives, albeit ad hoc in nature. These illustrations are offered in the hope that this thesis can serve as the beginning of continued efforts to incorporate mandatory preparedness curricula in the K-12 educational system.

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