



TERRORISM PLANNING THROUGH THE EYES OF THE PUBLIC

VENTURA COUNTY TERRORISM PREPAREDNESS SURVEY

PREPARED FOR:
VENTURA COUNTY DISASTER MANAGEMENT UNIT
COUNTY OF VENTURA

RESEARCH CONDUCTED BY:
CREATIVE RESEARCH CENTER
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{ TABLE OF CONTENTS }

EXECUTIVE SUMMARY..... 6

INTRODUCTION:..... 11

SCOPE AND METHODOLOGY OF THE STUDY 13

2.2) METHODOLOGY OF DESIGNING THE SURVEY 14

2.3) CONDUCT OF THE STUDY 15

PREPARATION OF STATISTICAL ANALYSES 15

3.1) TRAINING OF INTERVIEWERS..... 15

3.2) PILOT EVALUATION..... 15

3.3) FIELD WORK 15

3.4) DATA COLLECTION 16

3.5) DATA PROCESSING..... 16

3.6) DATA CLEANING 16

3.7) STATISTICAL PROCEDURES AND TESTS EMPLOYED..... 17

3.8) LIMITATIONS..... 17

REPORT OF THE STATISTICAL FINDINGS AND THEIR INTERPRETATION 17

4.1) GENERAL LEVEL OF CONCERNS ABOUT POSSIBILITY OF DISASTERS TO OCCUR 18

4.2) GENERAL LEVEL OF CONCERNS ABOUT POSSIBILITY OF DISASTERS TO OCCUR BY DEMOGRAPHIC 20

4.3) AUTHORITIES TRUSTED TO RECEIVE DIRECTIONS AT TIME OF CRISIS 21

4.4) BEHAVIOR WHEN HEAR ABOUT AN OUTBREAK 22

4.5) PERCEPTION LEVEL OF THE COUNTY’S PREPAREDNESS 23

4.6) ATTITUDE ABOUT HOW SUPPORT SHOULD BE GIVEN TO PEOPLE 24

4.7) PERCEIVED EFFECTIVENESS OF VENTURA COUNTY OFFICIALS DURING A CRISIS SITUATION 26

4.8) KNOWLEDGE OF EXISTING PROVISIONS WITHIN THE COUNTY..... 26

4.9) LEVEL OF CONCERNS, COOPERATION, AND COMPLIANCE AT TIME OF CRISIS 28

4.9.1) LEVEL OF CONCERN, COOPERATION AND COMPLIANCE AT TIME OF CRISIS: SUMMARY..... 30

4.10) DEMOGRAPHIC CHARACTERISTICS 31

SUMMARY OF THE FINDINGS AND POLICY IMPLICATIONS	33
5.1) SUMMARY OF FINDINGS AND THEIR COMPARISON WITH THE NEW YORK ACADEMY OF MEDICINE STUDY (NYAM) (ALSO REFERRED TO AS THE “NATIONWIDE STUDY”)	33
5.1.1) LEVEL AND TYPES OF CONCERNS	33
5.1.2) KNOWLEDGE, ATTITUDE, AND REACTION TOWARDS COUNTY’S PLAN IN TIME OF CRISIS	34
5.1.3) HEALTH AND HEALTH SERVICE KNOWLEDGE AND ATTITUDE	36
5.1.4) HEALTH RISKS RELATED TO “SHELTER IN PLACE”	37
5.1.5) DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS.....	38
5.2) POLICY IMPLICATIONS OF THE STUDY	38
5.2.1) STEPS TO DEAL WITH EXISTING CONCERNS ABOUT THE POSSIBILITY OF DISASTERS OCCURRING IN VENTURA COUNTY	39
5.2.2) POLICIES TOWARDS CREATING A HIGHER LEVEL OF TRUST IN COUNTY OFFICES AND ORGANIZATIONS	39
5.2.3) POLICIES TOWARDS BETTER DEALING WITH EXPECTED PUBLIC BEHAVIOR WHEN LEARN OF AN ATTACK OR OUTBREAK.....	40
5.2.5) HOW TO EMPLOY A POSITIVE ATTITUDE OF COUNTY RESIDENTS IN SUPPORT OF BIO-DEFENSE MANAGEMENT	40
5.2.6) IMPROVING THE IMAGE OF THE COUNTY AUTHORITIES AND PUBLIC HEALTH AS EFFECTIVE ORGANIZATIONS CAPABLE OF DEALING WITH BIO-TERRORISM.....	41
5.2.7) IMPROVING THE PUBLIC’S KNOWLEDGE ABOUT BIO-TERRORISM AND DEFENSE PLANS	41
5.2.8) IMPROVING THE LEVEL OF COOPERATION AND COMPLIANCE WITH PUBLIC HEALTH AUTHORITIES’ DIRECTIVES AND RECOMMENDATIONS AT TIME OF CRISIS	41
APPENDIX A.....	42
APPENDIX B.....	58

{ **TABLE OF FIGURES** }

FIGURE 1 – BREAKDOWN OF CITIES AND RESPECTIVE NUMBER OF RESPONSES 16

FIGURE 2 - NATURAL DISASTERS MOST WORRIED ABOUT..... 18

FIGURE 3 – LEVEL OF CONCERN ABOUT DIFFERENT TERRORIST ATTACKS..... 19

FIGURE 4 – HOW LIKELY DO YOU THINK IT IS THAT A TERRORIST ATTACK WILL HAPPEN IN VENTURA COUNTY 19

FIGURE 5 – WHOSE INSTRUCTIONS WOULD YOU MOST LIKELY FOLLOW IN THE CASE OF AN ATTACK? 21

FIGURE 6 – BEHAVIOR IF A HEALTH OFFICER ANNOUNCED YOU SHOULD GO TO A NEARBY LOCATION 22

FIGURE 7 – WHICH WOULD YOU WANT TO DO IN CASE OF A BIO-TERRORIST ATTACK..... 23

FIGURE 8 – WHAT ONE WOULD DO TO GET INFORMATION AND ADVICE 23

FIGURE 9 – HOW PREPARED DO YOU THINK VENTURA COUNTY IS TO DEAL WITH AN ATTACK 24

FIGURE 10 – HOW IMPORTANT IS IT FOR COMMUNITY MEMBERS TO HELP DEVELOP PLANS..... 25

FIGURE 11 – HOW MUCH INFLUENCE CAN COMMUNITY MEMBERS HAVE ON PLANS BEING DEVELOPED ... 25

FIGURE 12 – HOW MUCH CAN OFFICIALS REDUCE POTENTIAL DAMAGE BY PREPARING AHEAD..... 26

FIGURE 13 – ARE YOU FAMILIAR WITH PLANS BEING DEVELOPED BY VENTURA COUNTY AGENCIES 27

FIGURE 14 – WOULD YOU LIKE TO LEARN MORE ABOUT AGENCY PLANS 28

FIGURE 15 – HOW WORRIED WOULD YOU BE ABOUT CATCHING THE DISEASE..... 28

FIGURE 16 – WHAT WOULD YOU DO IF ORDERED TO “SHELTER IN PLACE” 29

FIGURE 17 – REASONS FOR LEAVING AFTER BEING TOLD TO “SHELTER IN PLACE?” 29

FIGURE 18 – LEVEL OF CONCERN, COOPERATION, AND COMPLIANCE AT TIME OF CRISIS 30

FIGURE 19 – ETHNIC REPRESENTATION 31

FIGURE 20 – AGE CATEGORIES OF RESPONDENTS 31

FIGURE 21 – GENDER REPRESENTATION 32

FIGURE 22 – INCOME REPRESENTATION 32

Executive Summary

More than ever, worldwide events have given greater support to the opinion that public health is one of the most important elements of public safety. One of the pivotal issues when preparing for emergency response in a community is to learn how people perceive danger and how they react to protective instructions in the event of a real life situation.

Planners and policy makers have long discounted the public's ability to respond to bio-terrorism because of a belief that an attack would create mass panic and social disorder. However, a team of researchers at the Johns Hopkins Bloomberg School of Public Health reviewed the public's response to such terrorist attacks as September 11th and the string of anthrax mailings that followed. They concluded that the public does not react with panic but with effective and adaptive action, which can be a valuable response force that should be utilized in bio-defense planning.

We have followed the instruction and recommendations that the Ventura County Disaster Management Unit provided us with in preparation for this study. The general outline of the county recommendations included the following components:

- The study for Ventura County should be based on possible and plausible premises pursued in the nationwide study carried out by the New York Academy of Medicine.¹
- This involved developing an appropriate questionnaire by modifying the New York Academy of Medicine's research instrument to reflect the socio-economic characteristics of Ventura County.
- The study should produce clear policy implications to improve communication between the county emergency authorities and county residents in the event of a bio-terrorism attack.

Over the period of two weeks, we met regularly with the Senior Social Psychologist of Ventura County Public Health and members of the Ventura County Disaster Management Unit to go over the conceptual framework of this study, including survey design. During these meetings the following actions were pursued:

- Identified the specific objectives of this project.
- Evaluated relevant survey projects and how they may relate to this study.
- Examined the characteristics of the Ventura County population as it may relate to this study.
- Determined sampling method to reflect the diversity of Ventura County's population within each its of 23 zip code areas. The proper sample size was determined to be 1,052 randomly selected residents of the Ventura County population. (Specific sampling methods will be discussed further in the report)

¹ "Redefining Readiness: *Terrorism planning through the Eyes of the Public*"

The findings of this study should be used to devise a number of bio-defense policy directives appropriate and tailor-made for the county. It should be noted, however, that there are a number of recommendations that may provoke debate at the county level.

The study provided an interesting picture of how residents of Ventura County think about the likelihood of a bio-terrorist attack, and how they might behave if it occurs. The findings of the study have been framed in the following areas and analyzed from a policy recommendation perspective:

General level of concern about the possibility of a disaster occurring.

- ■ ■ 33% said that they would be either extremely or very worried when news of a disease outbreak gets released
- ■ ■ 31% said that they would be either extremely or very worried when news of an outbreak of smallpox and the possibility of catching it gets released
- ■ ■ Some 70.2% of the respondents did not know about the difference between an atomic bomb and a dirty bomb. The rate of knowing the difference between the two in the nationwide survey was 50%, showing that the knowledge at the national level was considerably higher than our county level.

Authorities trusted to administer instructions at time of crisis.

- ■ ■ Respondents expressed a clear preference for following the order and instructions issued by the police and law enforcement agencies. Fire Captains were second in the hierarchy, while politicians came in last for their orders to be followed at time of emergency.
- ■ ■ Some 91.2% of the respondents said that Ventura County officials could be trusted during an emergency or a bio-terrorist attack

Behavior when learn about an outbreak.

Public perception of the degree of the County's preparedness.

Attitude about how support should be provided.

- ■ ■ More than 78% of respondents said that they would like to talk to someone to get information in the event of a bio-terrorist attack.
- ■ ■ When asked for their preference in seeking information during time of crisis, 34.6% said that they would want to talk to someone who knows about the disease. Nearly 28% said that they would search the Internet for more information. Knowing someone well or someone whom has knowledge about one's medical history registered significant percentage points.

Perceived effectiveness of Ventura County officials in dealing with a crisis situation.

- ■ ■ Some 71.8% believe that Ventura County health officials would not do anything to harm them during a medical emergency or bio-terrorist attack. Conversely, just over one quarter of the respondents surveyed (28.2%) thought that Ventura County health officials are capable of harming them during such a situation.

Knowledge of existing provisions within the county.

••• Only a small group (17.7%) of respondents answered that they have some knowledge about plans of Ventura County agencies and community organizations to respond to a terrorist attack. In comparison, at 26%, the nationwide survey showed a similar low level of knowledge regarding awareness of plans being developed.

••• 56.6% thought that having county authorities work with community members to develop plans for coping with a bio-terrorist attack situation was very or extremely important. Only about 20% thought that such cooperation was not at all or slightly important.

Level of concern, cooperation, and compliance at time of crisis.

••• When asked what might keep respondents from getting medicine or vaccines, some 41.3% said that there wouldn't be enough vaccines for everyone, compared to 52% in a similar question in the nationwide survey. 27.4% of Ventura County respondents mentioned problems getting organized, and 18.8% said that county wouldn't have enough staff to cater for the occasion. The nationwide survey also mentioned logistical and manpower problems as significant reasons for not being able to get the vaccines in time. Nearly 9% of respondents cited concern for not being able to afford the medicine.

••• Some 27.8% of the respondents were afraid to go to a "point of distribution" to get medicine or a vaccination.

••• Some 61.9% said they would be worried that getting the vaccine might make them sick and some 59.7% were worried about the side effects from the medicine or vaccine. Some 56.7% said that they are concerned about the allergic reaction or other bad reaction.

••• More than 58% did not know what was meant by the phrase "shelter in place."

Based on these findings, a series of policy implications can be recommended by employing the thematic headings presented above. A majority of the following suggestions propose steps that should be both taken to *prepare* for an attack as well as what should be done when one occurs:

Community Member Task Force

••• This survey showed that residents not only believe that the county should be proactive in developing plans to deal with a crisis situation, but they support a greater role from the public in developing such plans. It is therefore recommended that county in general and public health in particular **create a bio-defense response team formed of volunteers** that can have a central role in helping the victims and assist the career personnel at time of crisis.

••• There is a need to involve a broad spectrum of community residents in community preparedness planning so **they will be confident that planners are familiar with their concerns** as it relates to the needs of their family, relatives and neighbors.

••• **Train select community members** (paid and volunteer) to be able to talk and give information to the public during time of crisis. These people should be easily reachable and available when their services are needed, **and "mock crises" should be conducted** annually, at minimum. They could be called "Volunteer Rapid Response Team" or something of such nature.

Planning, Training and Practicing

- Because of their high level of trust, such organizations as law enforcement authorities, fire captains, and the public health department should be **rigorously trained** for facing various potential crisis situations.
- There is a need to **develop a coordinated policy plan** among participating agencies (police force, county sheriff, public health and county supervisors' office) that can be readily deployed and function effectively in time of crisis. Volunteers should be mobilized and directed under the supervision of officers that they worked with in training.
- There should be ample opportunity to **stage joint-practice sessions** with all of the county's key agencies and personnel. It is essential to record the shortcomings and make sure improvements are made after each run.

Information and Communication

- Earning the public's trust can only be obtained by **engaging them in frank discussions about the potential dangers** of bio-terrorism attacks. This should be discussed from various perspectives to the extent that relate to the county and its economic, environmental and social aspects of their lives.
- Our study showed that in general people trust the authorities in the county. However a significant minority believed that under crisis situation, the county authorities might resort to policies harmful to them (28.2%). It is fair to conclude that the county authorities in Ventura County are not facing a crisis of trust in the eyes of the majority of its residents, but there is still ample reason to conclude that **residents need to be assured that policies at time of crisis will not be to their detriment**. To avoid this, the county needs to **provide its residents with information about its preparedness** and priorities during a time of crisis.
- **Create and identify several "safe places"** where people can go during time of crisis. All locations should be feasible for large groups of people and should include places people frequent or would want to go in time of crisis. A broad array of places fall into this category including: work sites, shops, malls, schools, day care centers, hospitals and clinics, recreational and entertainment facilities, government buildings, apartment buildings, and transportation terminals. **Managers of such places should be trained about what to do in time of crisis.**
- **Public announcements should be made in advance to identify "safe places."** Public media such as local television, radio, and even the Internet are crucial at time of crisis. Newspaper and other print should be used in advance.
- **Provide clear protocol about what is safe to do** when asked to go to nearby locations to get medicine during a time of crisis. This has to be done now and continue to be a pattern of repeated public announcement.
- A large number of people are not confident Ventura County is ready to deal with a crisis situation when the occasions arises (45.5% said very little or not at all). It is the obligation of the county to **reassure community members of the county's capacity to effectively deal with problems** at time of crisis. Areas that are lacking preparedness should be addressed immediately.
- Our cross-tabs across respondent ethnicity, age and gender, address **differences in fear, concerns, and trust in county authorities** in general and public health

department in particular. These findings provide a good road map of how to approach, earn trust and calm fears among these different groups. Key steps include understanding the roots of apprehension, then attempting to resolve the issues while communicating the solution to concerned parties.

••• The use of public awareness films and analysis of other recent disasters in other parts of the world, including lessons learned and mistakes made, would show our community that they have a sentient local government and public health authority that is serious about doing what it takes to protect their safety and well-being. Transparency about mistakes during time of crisis elsewhere will help people trust their local authority and comply with their directives.

Don't confuse agency image with public policy...

The issue of image building should not be misconstrued as policies that do not serve a tangible purpose for our community and by their very nature are contradictory to public policies. Since the issue at hand is not a mere cosmetic makeover of an organization in isolation, it is to improve the synergy and capabilities of the county public health and emergency management combined. These improvements should be conveyed to the public so they can be assured that their county is prepared to deal with potential harms effectively at time of crisis.



INTRODUCTION:

A Glance at Current Debates on the Public's Role in a Bio-terrorism Attack

Bio-terrorism is a significant threat to the health of every community in the United States and many places around the world. Recent developments have given greater support to the opinion that [public health is one of the most important elements of public safety](#). Before September 11th, 2001 most biological defense strategies in the United States have been geared to protecting soldiers on the battlefield rather than ordinary people in cities. The current public discussion of the threat of biologic terrorism provides an opportunity for communities to evaluate their capabilities and assess their weaknesses and vulnerabilities. Raising the level of national preparedness requires leadership and action by responsible agencies. A thoughtful analysis of the consequences of unpreparedness provides a mandate for action. The task of assessing preparedness on a regional level is a vital piece of the overall strategy and should not be taken lightly, as [rapid response is at the heart of any effective response plan for a community](#).

[One of the pivotal issues when preparing for emergency response in a community is to learn how people perceive danger \(bio-terrorism in this case\) and how they react to protective instructions in the event of a real life situation](#). Because public health emergency preparedness for bio-terrorism is a relatively new field of study, research in related health services and systems is somewhat limited and narrow in focus. Discussion for finding effective strategies for mitigation of psychosocial impacts in the event of a bio-terrorism attack has remained largely in disaster psychiatry and mental health literature without making an important impact on public policymakers. Significant financial resources have been allocated to making our food supply, public transportation, and other vulnerable segments of our economy safer but little attention has been devoted to managing the psychological impacts of such events on the general population.

Planners and policy makers have long discounted the public's ability to participate in a response to bio-terrorism because of a belief that an attack would create mass panic and social disorder. However, a team of researchers at the Johns Hopkins Bloomberg School of Public Health reviewed the public's response to such terrorist attacks as September 11th and the string of anthrax mailings that followed. They concluded that [the public does not react with panic but with effective and adaptive action, which can be a valuable response force that should be utilized in bio-defense planning](#).²

The researchers recommend five guidelines for limiting panic and effectively managing the public during a bio-terrorism attack.

- 1) Understand that public panic is rare and preventable. Bio-defense planners must create a constructive role for the public that should be closely based on existing social structures and routines.
- 2) Bio-defense planners should recognize the public as an active participant in responding to an attack.
- 3) Bio-defense planners must not solely rely on the hospital system to care for the sick during a bio-terrorism disaster. Hospitals today operate on a just-in-

² The study appeared in the January 15 edition of Clinical Infectious Diseases.

time principal to deliver care. The fact is that hospitals do not have enough doctors, nurses, beds, or equipment to care for a massive surge of patients.

- 4) The researchers stress that information and communication with the community must be an important component of bio-defense planning. Inaccurate or contradictory information could lead to mistrust of authorities, confusion, panic, and increased fear. In addition, there is an urgent need to create an "information stockpile." Multilingual public services announcements, leaflets, and other materials should be developed to provide concrete information on vaccines, antibiotics, and exposure risks during a biological attack.
- 5) Bio-defense planners must develop trust with the community. The researchers recommend that leaders continually educate the public on preparedness and response plans for bio-terrorism and encourage the public's input on important bio-defense planning measures. Leaders should also develop a collaborative relationship with the news media to ensure an open flow of information during an emergency.

The other important element of such a study attempts to understand public reaction in the case of a bio-terrorist attack, noting [there is a possibility of a broad range of differences of reaction in various communities and even among demographics](#). It is therefore important to assess individual communities for particular responses based on the diverse opinions that may reside in each district, given demographic, social and economic circumstances.

Since Ventura County has a highly diverse population, the aim of this study was to seek insight from representatives from various ethnic, gender, age, and income levels regarding the following areas of questioning:

- Level and type of concerns with regard to different kinds of natural calamities.
- Level of emotional and mental engagement about issues of bio-terrorism in recent past.
- Knowledge of preventive measures available and urgency of using them to protect ourselves and our families.
- Knowledge about transmission of disease from the infected to others.
- Level of trust in the validity of information we receive from official sources.
- Likelihood of following instructions provided and impediments in compliance.
- Preferences of sources (people and organizations) from whom/which one would like to receive information.
- Pattern of behavior in inquiring about the problem and receiving help during an emergency.
- Perceived impediments in getting help during an emergency.
- Interests in learning more about bio-terrorism from different sources.

SCOPE AND METHODOLOGY OF THE STUDY

2.1) Scope

We have followed the instruction and recommendations that the Ventura County Disaster Management Unit provided us with in preparation for this study. The general outline of the county recommendations included the following components:

- The study for Ventura County should be based on possible and plausible premises pursued in the nationwide study carried out by New York Academy of Medicine.³
- This involved developing an appropriate questionnaire by modifying the New York Academy of Medicine's research instrument to reflect the socio-economic characteristics of Ventura County.
- The study should produce clear policy implications to improve communication between the county emergency authorities and county residents in the event of bio-terrorism attack.

Bio-terrorism early detection and response has been the focus of a number of recent research in public health Bioinformatics. The ideal situation for any social and human behavioral research is to base it on real life data and information. However because such situations of bio-terrorism are rare and there have not been many studies conducted shortly after a bio-terrorism occurrence, [we are limited to the amount of observational research information available.](#)

As such, researchers Xiaoming Zeng M.D., Michael Wagner M.D., Ph.D. from the Center for Biomedical Informatics at the University of Pittsburgh developed some [theoretical-based cognitive models for patient treatment-seeking behavior.](#)⁴ The authors in this study include personal awareness, severity of the symptoms, demographical factors, socioeconomic factors, lay referral networks and decision efficacy as the determining factors for a person seeking treatment after the onset of symptoms. The primary interest of this study is to find the interaction between the infected person and his external circumstances that lead to the production of recorded data.

In addition, the low level of observational data available also challenges the ability to conduct a computer based early detection system of modeling. Therefore many researchers resort to theoretical rational using the non-traditional data source as the input for an early detection system. It is possible to create a proactive model for early alert and preparedness for a possible bio-terrorist attack if reliable data can be obtained. Such models can help build parameterized models for a computer-based bio-terrorism attack simulation, which can be of enormous value to the community. The important piece of such research is to base the algorithms of any such models on the reaction of

³ "Redefining Readiness: *Terrorism planning through the Eyes of the Public*"

⁴ For further information see Xiaoming Zeng M.D., Michael Wagner M.D. Ph.D., Modeling of Patient Treatment Seeking Behavior after Bioterrorism Attack: Rationale for Data Sources Integration and Simulation Parameters Selection, Center for Biomedical Informatics, University of Pittsburgh, Pittsburgh, PA15260.

the community using appropriate qualitative data. Such data are hard to gather and their reliability is often questionable, particularly if these studies do not use appropriate design standards and methods. The most common ways of conducting such inquiries are using relevant surveys or other reliable means of public inquiry.

Our study used a survey to obtain such information from the residents of Ventura County. The findings of this study should be used to devise a number of bio-defense policy directives appropriate and tailor-made for the county. It should be noted that there are a number of recommendations that may provoke debate at the county level.

2.2) Methodology of Designing the Survey

Over the period of two weeks, principal researchers met regularly with the Senior Social Psychologist of Ventura County Public Health and members of the Ventura County Disaster Management Unit to go over the conceptual framework of this study, including survey design.

During these meetings, the following actions were taken regarding survey design:

- Evaluated relevant survey projects and how they relate to this particular study.
- Identified the specific objectives of this project.
- Examined the characteristics of the Ventura County population as it relates to this study.
- We used the [New York Academy of Medicine survey as a conceptual framework](#) to design the Ventura County survey. Modifications were made as applicable to capture and identify special characteristics in our locality.
- We used a combination of the Stratified Random Sampling and Simple Random Sampling methods to select a truly representative sample of the target population of Ventura County.
- A [proportionate stratified random sampling method](#) was used to select a representative sample from each of Ventura County's 23 zip codes. The sample should reflect diversity of the population within each zip code area. A simple random sample from a finite population is selected such that each possible inhabitant has the same probability of being selected. [The proper sample size was determined to be 1,052 randomly selected residents of the Ventura County population.](#) Thus we believe our method of selecting the samples will reflect the diversity of the population as stipulated in RFP.
- We used a randomization method by utilizing the Table of Random Numbers generated by the SPSS statistical software system. The desired margin of error was determined at approximately 5%.
- Based on our sample findings, [we can make a complete statistical inference about the entire population of Ventura County at the 95% confidence level.](#) The purpose of statistical inference is to obtain information about the whole county from information contained in our sample. Moreover, statistical inference for the population of each zip code area was also conducted at the 95% level of confidence.

2.3) Conduct of the Study

The following steps were taken in the process of conducting this survey:

- Upon completion of the survey design and several pilot runs, necessary changes were made to the questionnaire and a Spanish translated version was prepared.
- A group of experienced surveyors (majority of who conducted similar surveys in several prior studies) were recruited and trained for this specific task.
- Telephone numbers were randomly generated from a telephone bank.
- Efforts were made to have close and consistent supervision during data collection and entry.
- Data cleaning was done by the principal researchers.

Preparation of Statistical Analyses

3.1) Training of Interviewers

Both our English and Spanish survey instruments were ready towards the end of April 2005. Training of a team of 6 graduate and undergraduate students from California Lutheran University started during the same period of time.

3.2) Pilot Evaluation

A select sample of 50 respondents participated in a pilot survey to assess the following:

- Have interviewers verify that all instructions and “skip” patterns were correct.
- Watch for questions that were awkward to read or unclear about what the question was asking. These problems suggested that the questions needed to be revised.
- Have interviewers ask respondents for their general reactions to the questionnaire at the end of the interview. Since this survey asked personal questions about how respondents feel about issues related to their wellbeing, we needed to make sure that the questions were not too personal or provocative to anyone.
- Review the questionnaire, item by item, noting questions that worked well and those that needed revision.
- Make sure that both the Spanish and the English versions conveyed the same meaning to every respondent.

3.3) Field Work

By early May 2005 we finished the pretest and edited the research instrument to reflect our pretest findings. The respondents for each zip code were selected by using appropriate statistical methods. Beginning in early May 2005, the survey team administered the telephone interviews, completing 1, 052 questionnaires by mid June 2005. Telephone surveys were used to collect the data because they had the fastest turnaround time of all polling methods and delivered almost instant analysis. Graphs and charts were later developed to illustrate the results of the study.

3.4) Data Collection

The following table shows the breakdown of the cities and their respective number of responses. With a total sample size of 1,052 Ventura County residents, the actual number surveyed for each city is listed in the frequency column below.

FIGURE 1 – BREAKDOWN OF CITIES AND RESPECTIVE NUMBER OF RESPONSES

City				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	93	8.8	8.8	8.8
Camarillo	94	8.9	8.9	17.8
Channel Islands	22	2.1	2.1	19.9
Fillmore	12	1.1	1.1	21.0
Moorpark	44	4.2	4.2	25.2
Newbury Park	47	4.5	4.5	29.7
Oak View	25	2.4	2.4	32.0
Ojai	45	4.3	4.3	36.3
Oxnard	207	19.7	19.7	56.0
Piru	16	1.5	1.5	57.5
Port Hueneme	39	3.7	3.7	61.2
Santa Paula	12	1.1	1.1	62.4
Simi Valley	95	9.0	9.0	71.4
Somis	30	2.9	2.9	74.2
Thousand Oaks	135	12.8	12.8	87.1
Ventura	66	6.3	6.3	93.3
Westlake Village	70	6.7	6.7	100.0
Total	1052	100.0	100.0	

3.5) Data Processing

I. Coding

Once all of the questionnaires were completed, and prior to entering the responses into the computer, the data was appropriately coded for analysis. The data was coded using a three-digit code number for each questionnaire enabling the computer to provide the necessary data to be used for the final analysis.

II. Processing

The software system used for data entry and analysis was carried out using SPSS Version 11. An SPSS program was written where variable names were assigned to each question and response in the questionnaire. Value labels were then created for the variables. Once we completed the program, we ran a frequency procedure for every question.

3.6) Data Cleaning

A thorough data cleaning process was used to ensure accuracy of the data entries. If an error had occurred, it was quickly cleaned by referring to the original questionnaire. Each and every field was checked to make sure the appropriate code was entered.

3.7) Statistical Procedures and Tests Employed

We used the following procedures to develop the statistical analysis of Ventura County Terrorism Preparedness Survey:

Frequency distribution tables were prepared for all 54 questions, and the following statistics were displayed for each variable: frequency, relative frequency, valid percent, cumulative relative frequency, valid cases, and missing cases. We calculated both percentages of responses and cases where multiple- response to a question was allowed.

Contingency table (cross-tabulation) analysis was used for a number of cases in this study. This procedure determined if selected variables were dependent upon others. A contingency table provides a joint frequency distribution of cases and column percent.

3.8) Limitations

Since this survey was only a snapshot of the residents' perceptions at a given point in time, based on present situations and experience, [there is a need to take the pulse of the community from time to time to maintain a current assessment of the attitudes and perceptions of members of the community.](#)

Using telephone surveys employs the following limitations: people who do not have a phone number, those whose number is too new to be included in directories, and unlisted telephone numbers are systematically underrepresented. We were able to use a computer program to control the potential overrepresentation from households with multiple listings. For particular segments that had reservations about answering a phone interview, alternative arrangements were made to ensure they were represented by implementing a random sampling method at a few locations in the West County region.⁵

{ Report of the Statistical Findings and their Interpretation

As explained in the onset of this report, the primary objective of this survey was to assess the public's perception of county bio-terrorism readiness. The study contained a number of research questions where answers could help the Ventura County Disaster Management Unit devise appropriate policies and methods for achieving a higher degree of bio-terrorism preparedness at the county level.

⁵ Based on the feedback from our interviewers, the research team realized that a number of Hispanic households showed greater resistance towards being interviewed for a number of social reasons. In mid stream of this research, it was felt that the contribution of low income families are more skewed than other income brackets. The team therefore decided to draw a portion of this segment from a number of medical facilities. Willing respondents were randomly selected and interviewed on-site.



The research concept areas are below with the number of related questions:

- **Level and types of concerns** prompted **nine** specific areas of questions.
- **Knowledge, attitude, and reaction towards the county's plan** in time of emergency prompted **eighteen** areas of questioning that ranged from individual trust to organizations and authorities assigned to help people in time of emergencies to obtaining information about the impact of medical care during the time of such crisis.
- **Health and health service knowledge and attitude** consisted of **fifteen** areas of inquiry which aimed at finding out how informed our county residents are about the provisions and institutions that are available to help them at the time of a natural or human inflicted disaster.
- **Health risks related to "Sheltering in Place"** focused on **three** specific areas of questioning to see if residents are informed about the meaning and expected behavior that should be observed at the time of crisis, such as a bio-terrorism attack.
- **Demographics** consisted of **five** areas of questioning that categorized the county residents based on a series of important socio-economic data. The categories are vital to forming a better understanding of what might constitute differences in residents' perception of bio-terrorism threats and its consequences. This facilitates cross tabulations in order to find any specific difference in perception and/or common behavior among different individuals or groups.
- Finally, the questionnaire completes its inquiry with attempting to estimate the **magnitude of interest and needs** of the county residents for wanting to learn more about the topic, and what the county has to offer as additional information.

4.1) General level of concerns about possibility of disasters to occur

While the primary aim of this research is to find the anticipated reaction of Ventura County residents at the time of the outbreak of a bio-terrorism attack, it was felt timely and cost effective to also inquire about their perception towards other natural disasters.

As the following diagrams show, earthquakes are by far the most feared type of disaster, particularly natural. In terms of bio-terrorism, 52.5% expressed "somewhat" or "very" concerned over a terrorist chemical or gas attack.

FIGURE 2 - NATURAL DISASTERS MOST WORRIED ABOUT

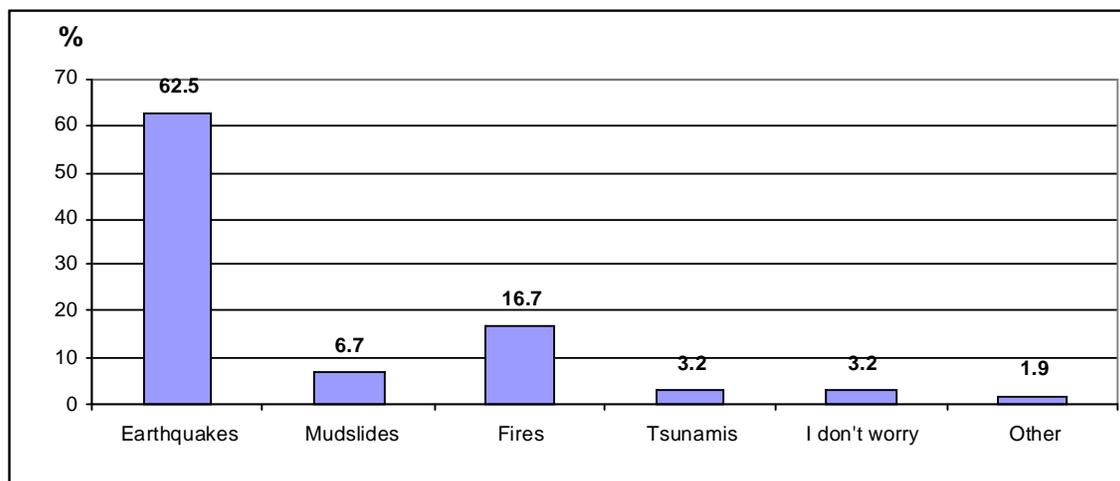
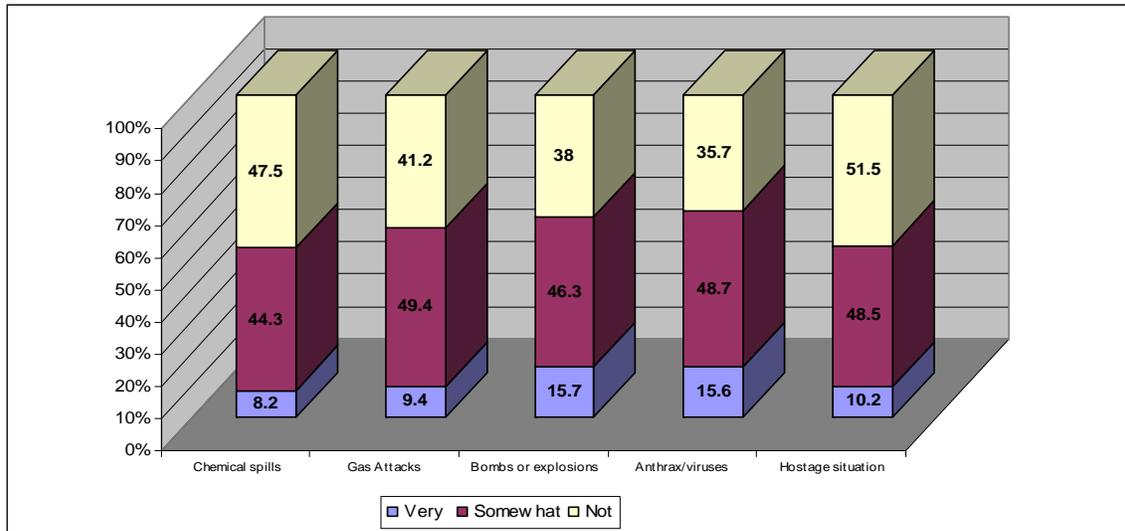


FIGURE 3 – LEVEL OF CONCERN ABOUT DIFFERENT TERRORIST ATTACKS

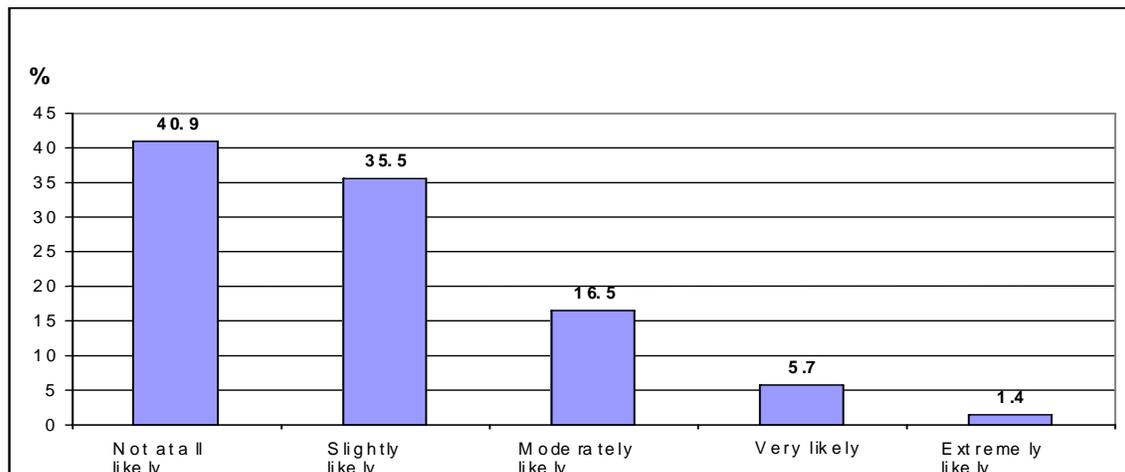


The rate of concern about terrorist bombs or explosives appeared higher than natural disasters. Some 62% of the respondents were either very or somewhat worried about the occurrence of such incidences. Concerns about the possibility of a bio-terrorist attack such as smallpox, anthrax or other viruses registered a higher level of fear, with 64.3% saying they were either very or somewhat concerned about such attacks. Concerns about a terrorist hostage situation registered the lowest level of concern as more than half of the people surveyed (51.5%) were not concerned about a terrorist hostage situation, and only 10.2% were very worried about this type of event.

How likely do you think it is that a terrorist attack will happen somewhere in Ventura County during the next ten years?

Question 27 asked respondents to give their opinion on the likelihood of a terrorist attack somewhere in Ventura County during the next 10 years. More than 40% of the respondents believed that such an incident is not at all likely. Only 7.1% believed that such an incident is very or extremely likely to occur in Ventura County.

FIGURE 4 – HOW LIKELY DO YOU THINK IT IS THAT A TERRORIST ATTACK WILL HAPPEN IN VENTURA COUNTY



4.2) General level of concerns about possibility of disasters to occur by Demographic

Because trust and fear are two important behavioral parameters deserving utmost attention, we ran a series of cross-tabs between the level of concerns and degree of trust across a number of demographic characteristics of respondents.⁶ The findings are summarized below and should be used to target communications:

Age

••• The relationship between the age and worries regarding bio-terrorist attacks was very significant (.000). It is interesting to note that as the age increases, people worry less about bio-terrorist attacks. The youngest age group (19-29 years) was the most worried about bio-terrorist attacks.

••• The relationship between the age of the respondent and concern about the threat of a terrorist situation is very significant (.000). The majority (52.1%) of the respondents were not worried at all about a terrorist situation. However, nearly half of the group who was concerned (44.6%) were between the ages of 30 to 49 years.

Income

••• There is a significant relationship between the income of the household and being worried about a terrorist hostage situation (.000). Individuals in the \$15,000 to \$25,000 income bracket were most worried about a terrorist hostage situation.

••• The study shows a significant relationship between level of income of the respondent and their trust in Ventura County health officials in the event of a terrorist attack (.000). Among those who indicated that they can trust Ventura County health officials in such an event, respondents earning more than \$100,000 had the least level of trust, while those in the \$25,000- \$50,000 income category expressed the highest degree of trust.

Ethnicity

••• One out of four Hispanic/Latinos (24%) were very worried about bio-terrorist attacks, which is significantly higher than the ratio of one out of 10 (10.6%) for Caucasians.

Gender

••• There appears to be a significant relationship between gender of respondents and level of being worried with regard to a hostage situation (.069). In general only one tenth (10%) of respondents were very worried about a hostage situation. However, the study found that nearly two out of three of those who were very worried happened to be females (61%).

••• The relationship between the gender of the respondents and their trust in Ventura County health officials in the case of a bio-terrorism attack is very significant (.016). While three out of five male (60.7%) respondents said that they would NOT trust Ventura County health officials in case of a bio-terrorism attack, two out of 5 (39.3%) female respondents expressed such distrust.

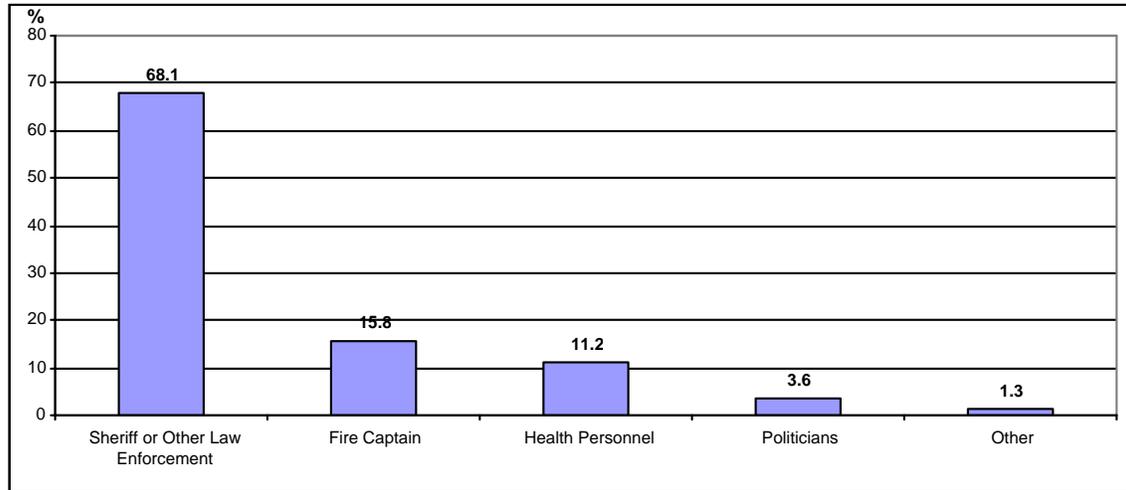
⁶ In general, the study looked a number of cross-tabs and only reported the ones that segments of answers were statistically significant. A more elaborated discussion of these cross-tabs and their detailed report can be found in Appendix (B) of this report.

4.3) Authorities trusted to receive directions at time of crisis

Whose instructions would you most likely follow in the case of a terrorist attack?

The following diagram shows who community members are most likely to listen to in time of crisis and/or a terrorist situation. It is interesting to note that law enforcement agencies and fire captains rank highest in the people's trust during such circumstances. About 11% prefer to listen to county health officers. Politicians have by far the least likelihood of being listened to with only 3.6%.

FIGURE 5 – WHOSE INSTRUCTIONS WOULD YOU MOST LIKELY FOLLOW IN THE CASE OF AN ATTACK?



In a medical emergency or bio-terrorism event do you feel Ventura County officials can be trusted?

91% of respondents claim they would trust Ventura County health officials in a medical emergency or bio-terrorist event. The issue of trust is very important. Somehow several of the respondents seem to have made a distinction between trust and having confidence in an organization's ability to perform effectively at the time of a crisis event.

Questions related to the issue of trust, responsibility and capability can be better understood from responses to the following questions.

In a medical emergency or bio-terrorism event do you feel Ventura County officials will be truthful?

And

In a medical emergency or bio-terrorism event do you feel Ventura County officials will care about people like you?

75.8% felt they Ventura County officials would be truthful in such a crisis situation, and 87.4% felt the county officials would care about them, which shows a relatively high level of confidence in the county health official's sense of care and attention to the well-being of people of the county.

In a medical emergency or bio-terrorism event do you feel Ventura County officials might decide to do something they know would harm people like you?

Interestingly enough, the level of trust registered a relatively lower level of confidence (but still high in its absolute gauge) in Ventura County health officials when they were

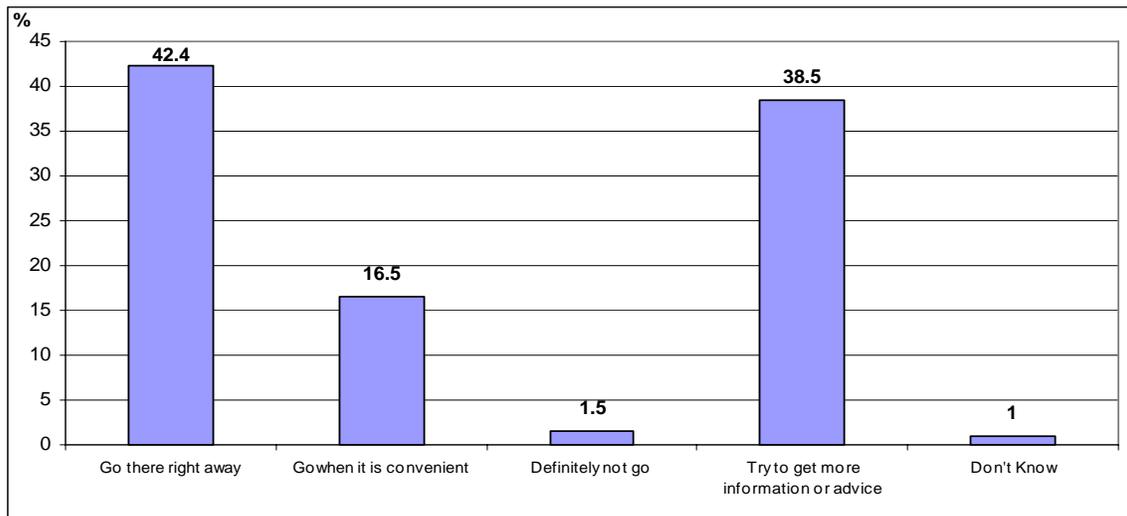
asked if they believed that Ventura County officials might do something that they know would harm people in a medical emergency or bio-terrorism event. Some 71.8% of respondents rejected this suggestion, but 28.2% believed that this is a possibility. **This shows that a significant percentage of county residents believe that county officials are capable of inflicting harm on people by way of combating bio-terrorism.**

The synthesis of responses regarding trust in Ventura County health officials shows that the majority of respondents seem to feel favorably. However, a significant minority of Ventura County residents believe that health officials might initiate measures even if they know they may inflict some harm on them. This is a complicated issue that varies among social, economic, and ethnic groups. **The demographic cross-tabs outlined in the previous section provide insight that can be used to communicate more effectively with specific groups.**

4.4) Behavior when hear about an outbreak

The following diagram shows how eager or reluctant people are likely to be when they are asked to go to a nearby location to get medicine or a vaccine. **Only 42.2% of the respondents said that they would rush right away** to a nearby location to receive such assistance, while some 16.6% were of the opinion that they would only go to those locations when it is convenient. 1.5% said they would definitely not go to receive help.

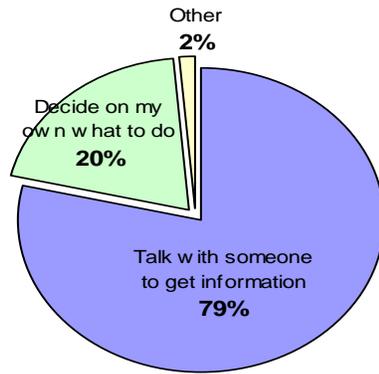
FIGURE 6 – BEHAVIOR IF A HEALTH OFFICER ANNOUNCED YOU SHOULD GO TO A NEARBY LOCATION



Which would you want to do in case of a bio-terrorist attack?

The following chart shows that 77.8% of respondents would prefer to talk to someone and get information. However, nearly 20% of respondents prefer to decide on their own what they want to do, which is quite significant bearing in mind the gravity of the situation at the time of crisis. Anticipating the reaction of people and their behavior, particularly how they seek information when they hear about a bio-terrorist attack is very important for effective management of a bio-defense plan.

FIGURE 7 – WHICH WOULD YOU WANT TO DO IN CASE OF A BIO-TERRORIST ATTACK

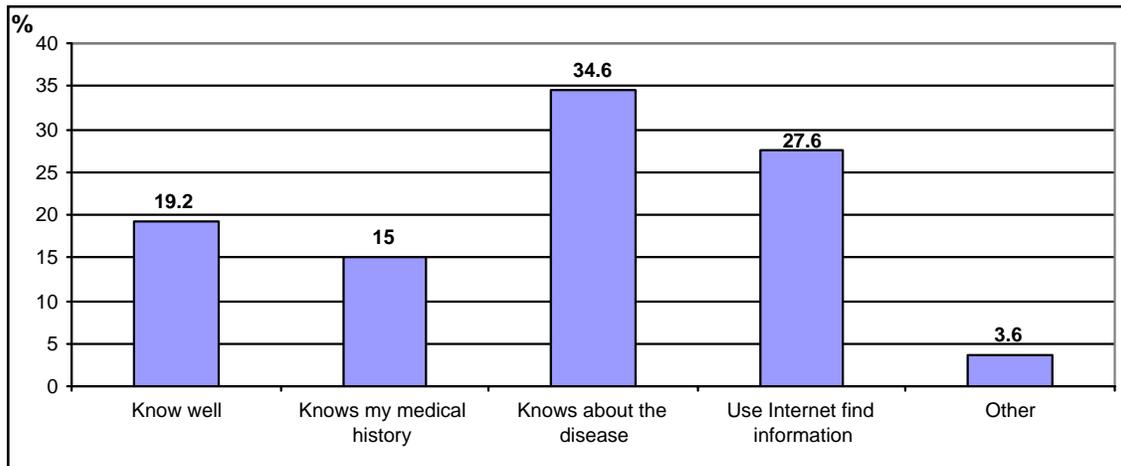


The policy issue is what can be done to assist people who prefer to decide on their own what to do during a time of crisis.

If you want to talk to someone to get information and advice would you...:

The majority of respondents (34.6%) said that they would like to talk to someone who knows about the disease when seeking information and advice. The second highest response was to use the Internet to find information.

FIGURE 8 – WHAT ONE WOULD DO TO GET INFORMATION AND ADVICE

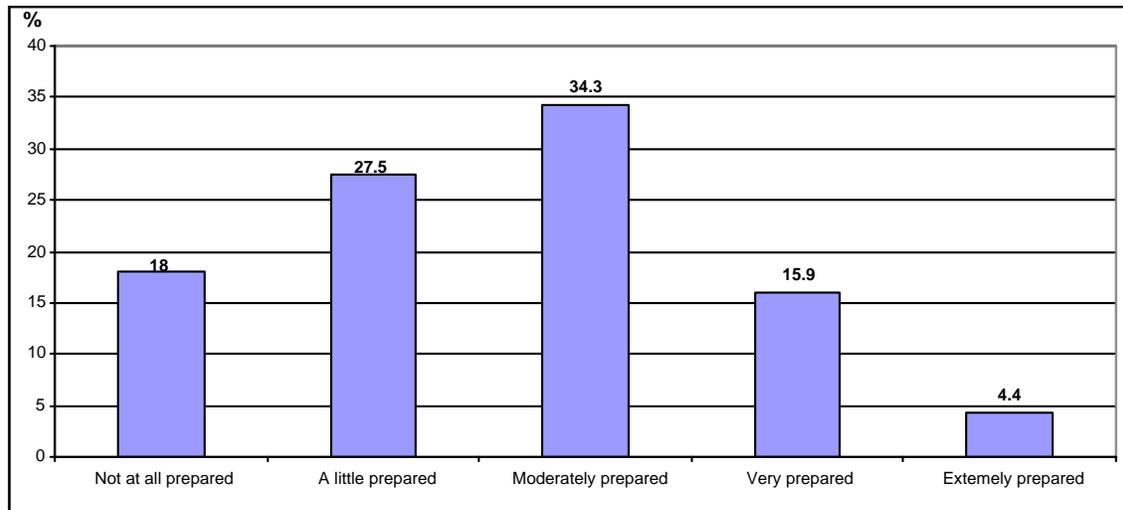


This exposes a clear need to utilize the Internet as a way to disseminate information.

4.5) Perception level of the County’s Preparedness

Regarding perceptions of how prepared Ventura County is to deal with terrorist attacks, responses reveal that some 45.5% of the respondents believe that the county is either not prepared at all (18%) or a little prepared (27.5%). Slightly over 20% believe that the county is very or extremely prepared to deal effectively with a terrorist attack situation.

FIGURE 9 – HOW PREPARED DO YOU THINK VENTURA COUNTY IS TO DEAL WITH AN ATTACK



This exposes a clear need to make community members aware of county preparedness in the event of bio-terrorist attack.

How much do you think that Ventura County officials know about your concerns and information needs?

46.4% said that the officials know nothing or a little. Not knowing about what people need could be a source of distrust in the ability of authorities to deal with public needs positively and effectively.

If a disaster or bio-terrorism attack happened, how likely do you think it is that Ventura County could get medications or vaccines to you in time to protect you and the people you care about?

The answers were rather mixed. A large segment of the people, 18.9% said they didn't know. Nearly 50% (49.3%) said that the county would probably get it in time. Some 31.8% of the respondents said that they did not believe the county would be able to get them the medicine or vaccines in time.

4.6) Attitude about how support should be given to people

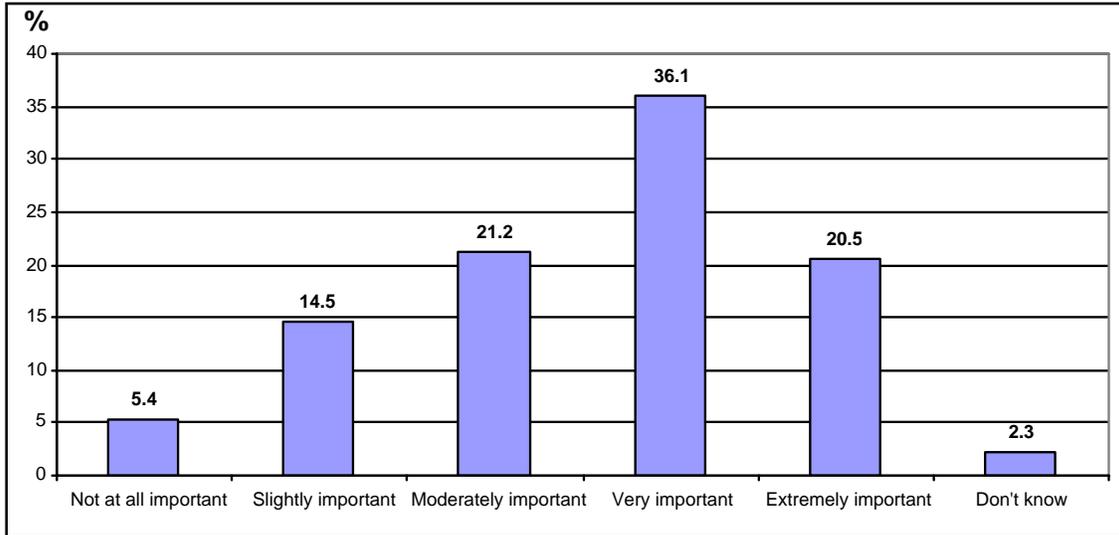
How strongly would you support giving medicines/vaccines first to bio-terrorism victims even if it slows down vaccinating people who have not been exposed?

Nearly 80% either strongly support (29.2%) or just support (49.7%) the proposition that medicine and vaccines be given first to victims of a bio-terrorist attack even if it slows down vaccinations to people who have not yet been exposed.

How important is it for Ventura County officials to work with community members develop plans for possible terrorist attacks to deal with these kinds of situations?

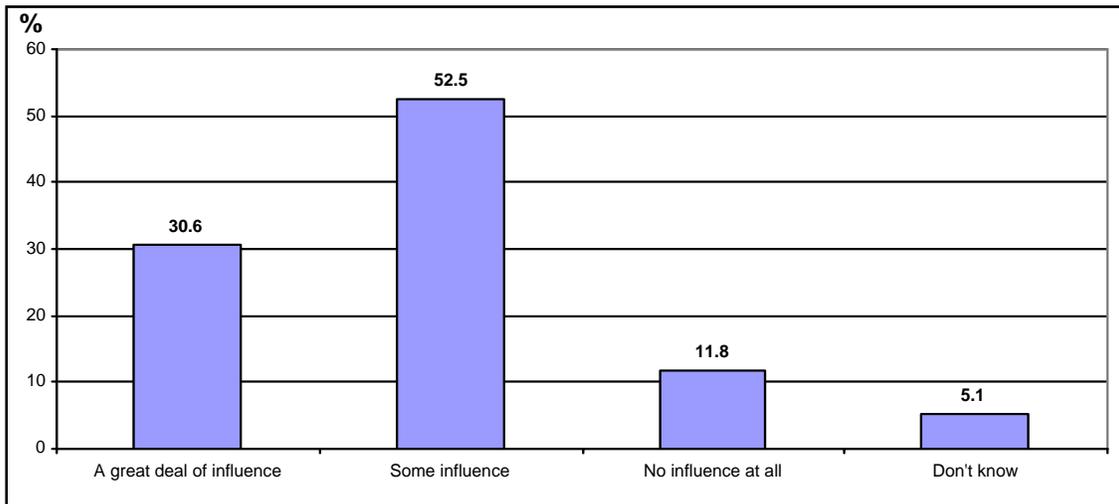
There was very strong support for Ventura County officials to work with people in the community in developing plans to deal with threat of terrorist attack. Some 80% of the respondents felt that Ventura County officials should work with people in the community to develop plans for a possible terrorist attack. The breakdown of answers to this question can be seen in the following chart.

FIGURE 10 – HOW IMPORTANT IS IT FOR COMMUNITY MEMBERS TO HELP DEVELOP PLANS



Combined, as seen below, some 83.1% of respondents thought that people in the community can have a great deal or some influence on plans that Ventura County agencies are developing to deal with terrorist attacks

FIGURE 11 – HOW MUCH INFLUENCE CAN COMMUNITY MEMBERS HAVE ON PLANS BEING DEVELOPED



How important is it for people like you to help Ventura County officials develop plans to deal with the kinds of situations we are talking about today?

More than 70% of the respondents said that it is moderately, very, or extremely important for them to help the officials to deal with terrorist situation.

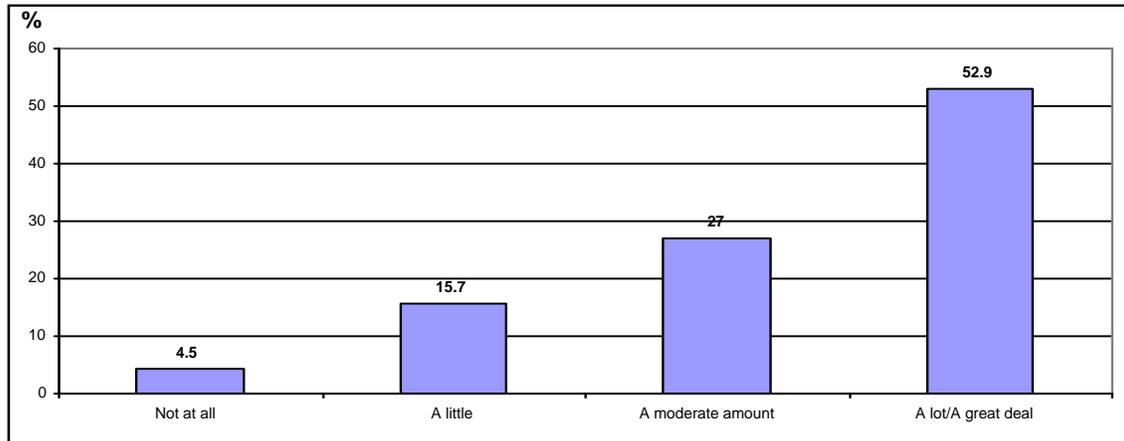
There is a significant level of support for the importance of helping Ventura County officials develop plans to deal with terrorist attack.

4.7) Perceived effectiveness of Ventura County officials during a crisis situation

How much do you think Ventura County officials can reduce potential damage by preparing ahead of time to deal with it?

As seen in the following diagram, nearly 53% of the respondents believed that potential damage can be reduced a great deal or a lot by preparing ahead of time. Only 4.5% of the people who answered this question believed that potential damage cannot be reduced at all by early preparation.

FIGURE 12 – HOW MUCH CAN OFFICIALS REDUCE POTENTIAL DAMAGE BY PREPARING AHEAD



In a medical emergency or bio-terrorism event do you think that Ventura County health officials will know what to do?

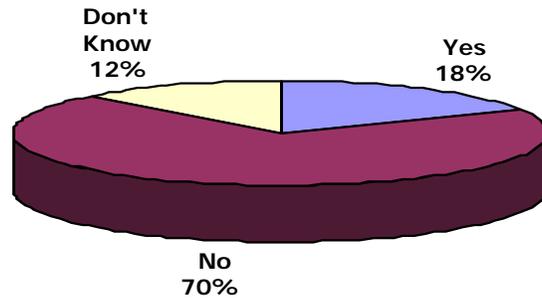
80.1% responded yes, health officials would know what to do in a medical emergency or bio-terrorism event. While this is a sign of general confidence, there is still a group of people who do not believe officials will know what to do.

4.8) Knowledge of existing provisions within the county

Are you familiar with the plans being developed by any of Ventura County agencies and community agencies to respond to terrorist attacks?

The following chart shows that only about 18% of people questioned were familiar with plans being developed by Ventura County agencies and community organizations to respond to terrorist attacks.

FIGURE 13 – ARE YOU FAMILIAR WITH PLANS BEING DEVELOPED BY VENTURA COUNTY AGENCIES



Before today, have you heard the phrase “point of distribution” site?

AND

Before today, have you heard the phrase “shelter in place”?

More than 65% stated they had not heard the phrase “point of distribution” before, and more than 58% of respondents had not heard the phrase “shelter in place” before.

The question of how much people of the county know about the existing facilities and provisions is as important as their attitude about the severity of potential danger and who they can trust. The other equally important aspect of assessing the level of their knowledge is to find what can be done to enhance it.

Making the public aware of key bio-defense terms will increase their confidence in preparedness and will also likely increase their levels of compliance.

Fortunately, a much higher percentage of respondents (62.7%) knew about the county’s vaccination clinics that were set up last November to give people flu shots (question 37).

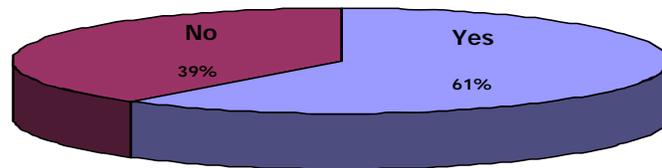
In response to question 43, only 28.9% said that they know the difference between a “dirty bomb” and an “explosive atomic bomb.”

These questions show that a large number of respondents have a relatively low level of knowledge about what the issues concerning bio-terrorism are, and what the county has set in place during a place in time of need.

Would you like to learn more about plans that Ventura County agencies have to deal with the kinds of situations we are talking about today?

This survey showed that the majority of Ventura County residents would like to know more about what the county is or will be planning, including how they plan to deal with the kind of situation discussed in the survey. The following chart shows the extent of such interest expressed by the community.

FIGURE 14 – WOULD YOU LIKE TO LEARN MORE ABOUT AGENCY PLANS



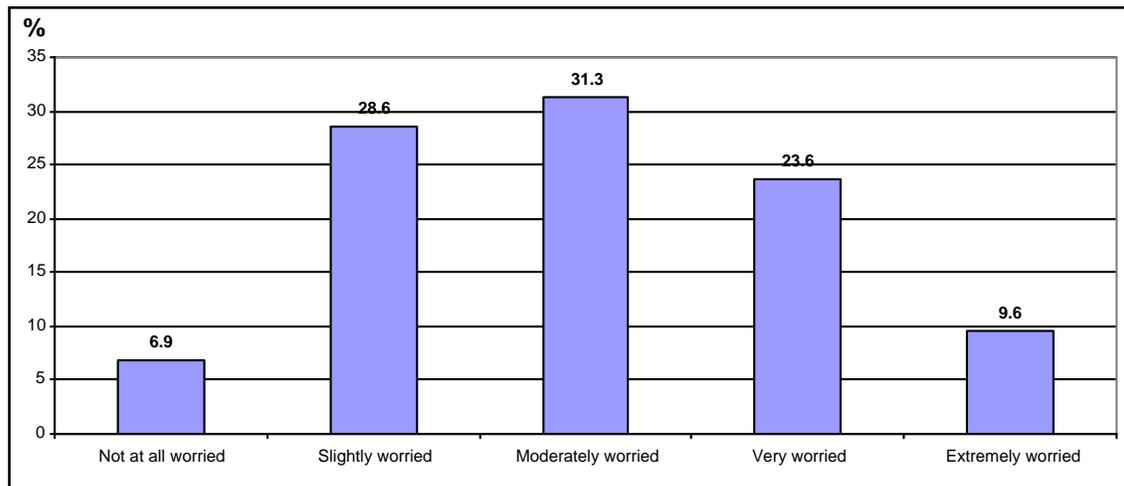
4.9) Level of concerns, cooperation, and compliance at time of crisis

In the beginning of this section a number of indicators showing the general concerns about the possibility of disasters were reported and discussed. This section in part focuses on respondents' concerns about how they would perceive danger and how they may respond to it at time of crisis.

If you hear about a disease outbreak, how worried would you be about catching the disease?

The chart presented below shows that 32.2% of respondents become extremely or very worried. However, some 34.5% are either not worried at all or slightly worried. This supports the findings of other studies that in general a large number of people behave rationally at time of crisis, and developing a better preparation program will likely help arrive at a better level of success when the crisis occurs.

FIGURE 15 – HOW WORRIED WOULD YOU BE ABOUT CATCHING THE DISEASE

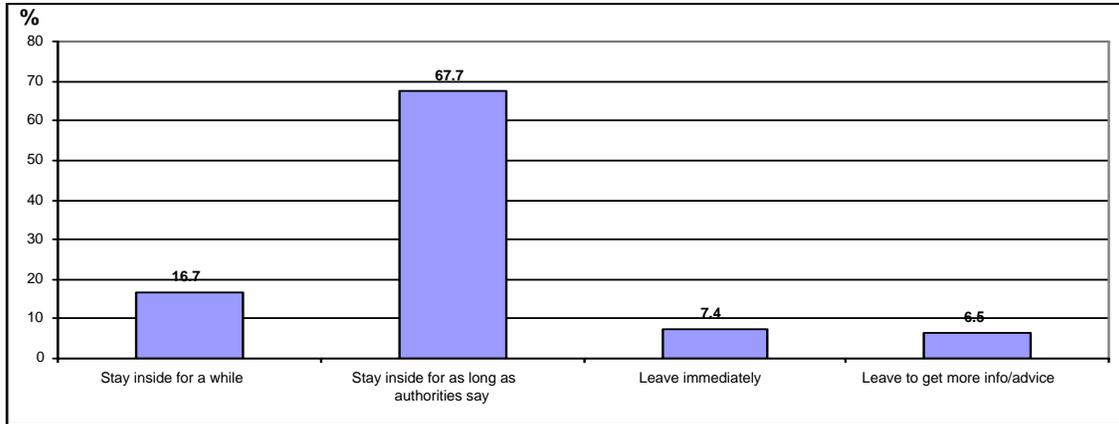


What would you do if everyone were ordered to “shelter in place”?

As seen below, a majority of respondents would stay inside as long as authorities say they should (67.7%). However, other responses that show the possibility of leaving the place for other reasons are also quite significant. Some 24%, or almost one quarter of respondents, may leave the place either immediately or after a while. This demonstrates the need to encourage people to stay inside during time of crisis until further directions

are given. Accepting orders concerning “shelter in place” is very important, and although behavior varies by individual and group experience, cooperation and willingness to accept recommendations are crucial to the success of a bio-defense program.

FIGURE 16 – WHAT WOULD YOU DO IF ORDERED TO “SHELTER IN PLACE”

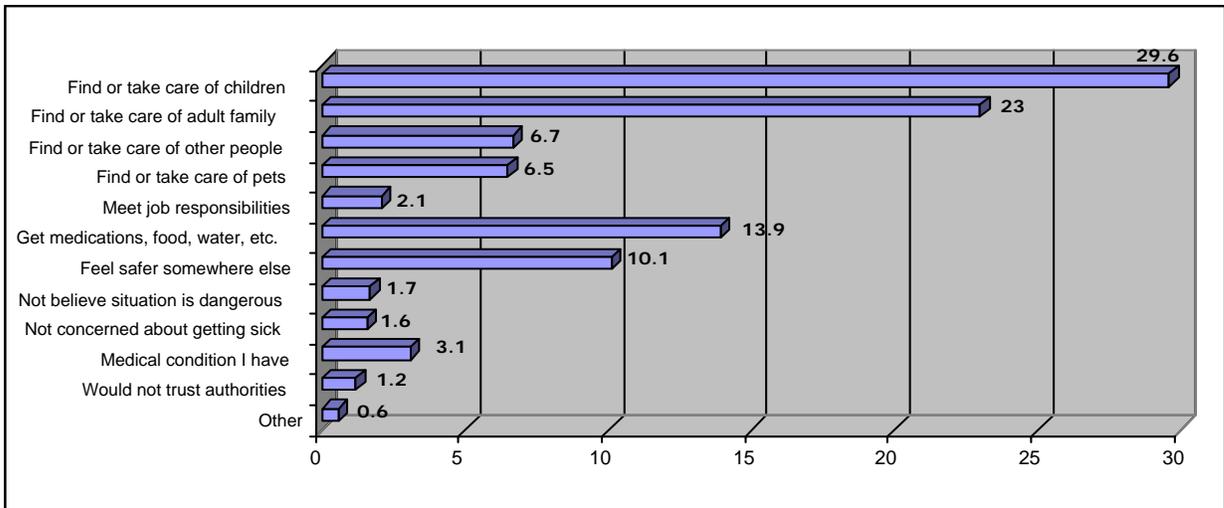


This demonstrates a need to encourage people to stay inside during time of crisis until further directions are given.

Why would you leave after being told to “shelter in place”?

The chart below shows that finding or helping children, family members, other people, and pets constitute more than 70% of the urge to disobey the order to “shelter in place” during the time of crisis. Some 10.1% of the respondents said that they do not trust the authorities, and some 13.9% mentioned getting medication as a reason to leave.

FIGURE 17 – REASONS FOR LEAVING AFTER BEING TOLD TO “SHELTER IN PLACE?”



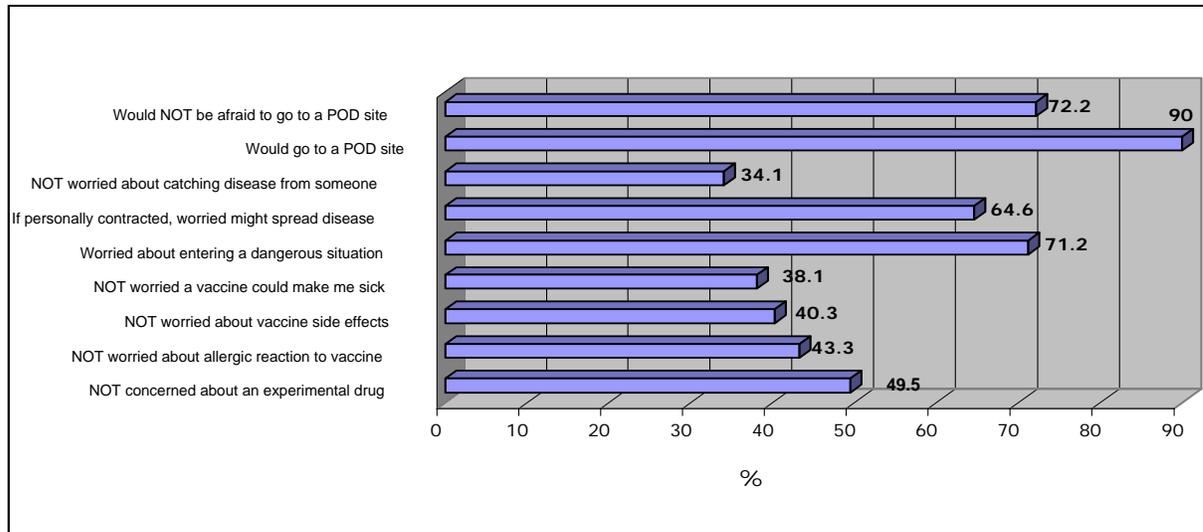
4.9.1) Level of concern, cooperation and compliance at time of crisis: Summary

The following chart shows a summary of answers to a range of questions concerning how people would react to recommendations made by the authorities (public health or other agencies) during the time of crisis. These suggestions typify the kind of directives that will be given regarding what one should do if a bio-terrorist incident occurs. Note there are slight changes in the phrases of answer lines in order to be able to report them in a consistent format, but no changes were made to the questions asked.⁷

As the following table shows, 90% of respondents said that they would go to a “point of distribution site” (POD) to get their medicine at the time of emergency, though only 72.8% would *not* be afraid to do so. **This means that a significant number of people might be afraid, but would still go to these sites to get their medicine.** There is however about 10% of the population who would not go to these sites to get their medicinal needs. The fear and compliance picture is more complex than simply dividing population between two groups of those who comply and those who do not, or are afraid but manage to overcome their fear.

One of the important issues of this survey was to explore possible sources of respondent fear that may lead to non-compliance. A series of questions tried to explore some of the possible reasons. Among them, as the complied chart shows, is what people know or think they know about different vaccines and medications. Based on the findings, a large percentage of people surveyed expressed fear about the side effects of the vaccines. This shows that there is a need for better communication to inform and assure people about what they can expect from the use of different vaccines or drugs.

FIGURE 18 – LEVEL OF CONCERN, COOPERATION, AND COMPLIANCE AT TIME OF CRISIS



There is a need for better communication to inform and assure people about what they can expect from the use of vaccines or drugs.

⁷ The chart summarized the answers to questions 29, 30, 31, 32, 33, 34, 35, 36, and 41. These questions ask respondents to put themselves in a situation resulting from a bio-terrorist attack, particularly when asked to follow certain recommendations. The answers are influenced by a number of human emotions, knowledge about the environment and experience. The answers can differ for any of such reasons.

4.10) Demographic Characteristics

Ventura County has a diverse population, as is reflected in the make up of our survey respondents. Some of the major characteristics from our sample are reported in below in four separate charts: ethnic background, age, gender, and income.

FIGURE 19 – ETHNIC REPRESENTATION

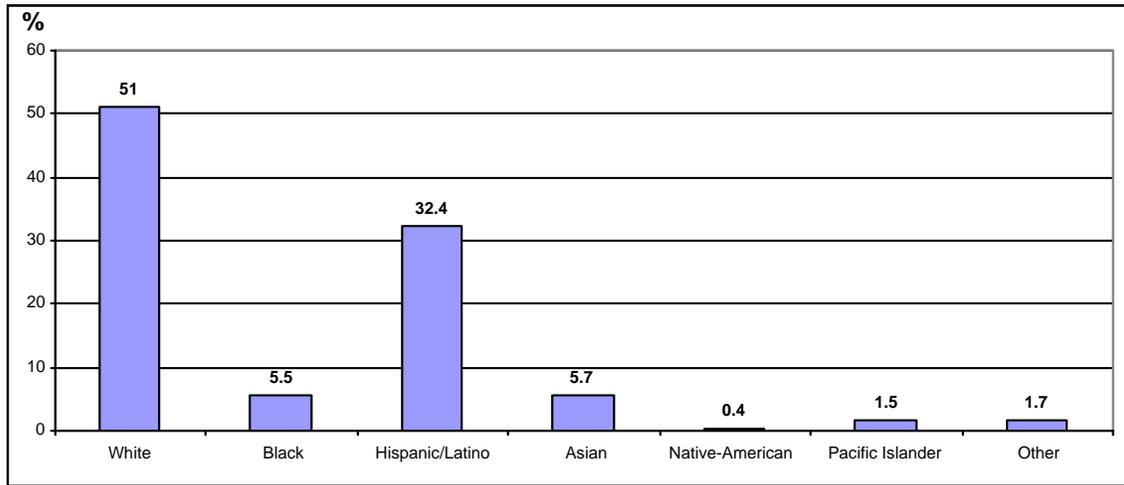


FIGURE 20 – AGE CATEGORIES OF RESPONDENTS

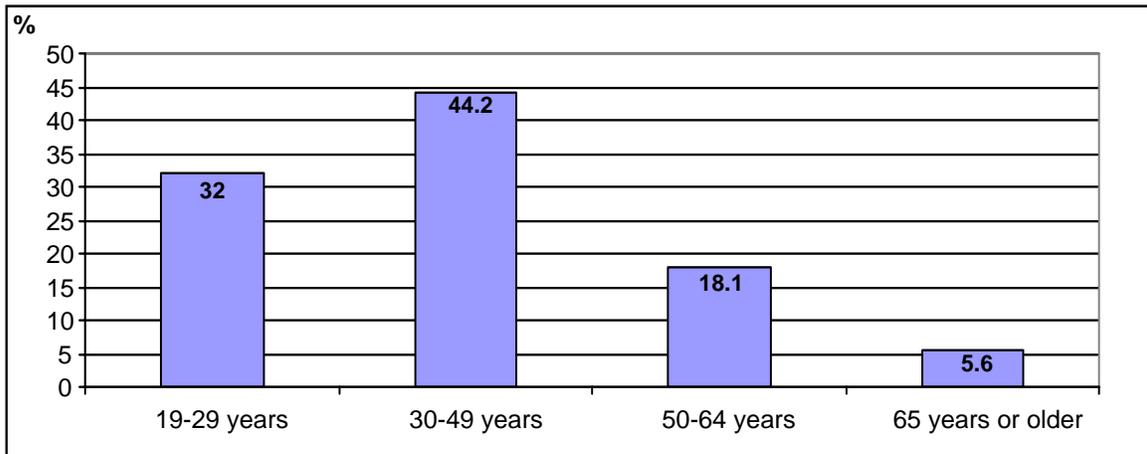


FIGURE 21 – GENDER REPRESENTATION

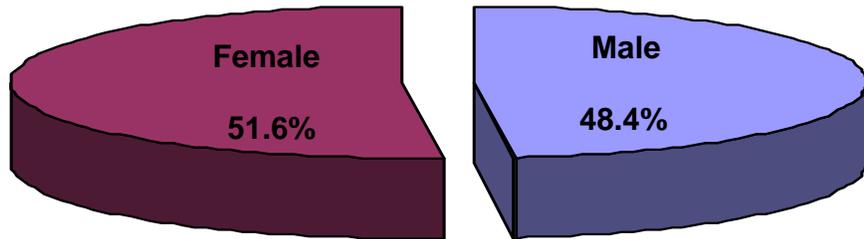
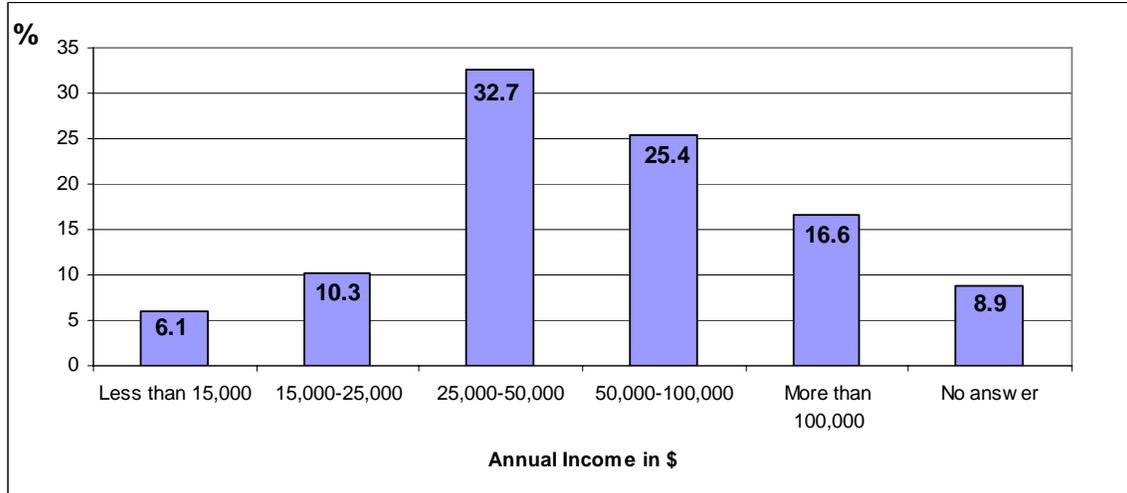


FIGURE 22 – INCOME REPRESENTATION



Summary of the Findings and Policy Implications

A key component to successful emergency response preparation in a community is learning how people perceive danger at the time of an emergency, and how they react to protective instructions in the event of a real life situation. The conventional belief is that an attack would create mass panic and social disorder. Recent studies of public response to the terrorist attacks of September 11th, the recent anthrax mailings, and other disasters concluded that **the public does not react with panic but with effective and adaptive action**. This can be a valuable response force that should be considered in bio-defense planning. The other important element of such preparation is to understand that there is a broad range of differences of opinion and response in various communities.

This study was conducted in conjunction with the Ventura County Disaster Management Unit. It aims at finding the anticipated reaction of Ventura County residents at the time of an outbreak of a bio-terrorist attack. One of the central themes of this study was to find the interaction between the infected person and his external circumstances. The idea is to use this insight to develop procedures and provisions that can lead to a substantial decrease in loss that a community is likely to otherwise suffer in a disaster event. **Anticipating the public's reaction will also help better focus preparedness plans, and ultimately achieve greater order in the event of an attack.**

The Ventura County study used the nationwide New York Academy of Medicine survey as a conceptual framework to design the Ventura County survey, however modifications were made as applicable to capture and identify special characteristics in our locality.

The study consisted of a 54-question survey ranging from perception of danger to what one would do if he/she decides to not comply with directives issued during crisis time.

5.1) Summary of findings and their comparison with the New York Academy of Medicine study (NYAM) (also referred to as the “nationwide study”)

The following segment breakdown of the survey presents the summary of the findings.⁸ We also made, where possible, a comparison between the findings of this study and the New York Academy of Medicine’s (NYAM) findings.

5.1.1) Level and types of concerns

- Understandably earthquakes are the most feared natural disaster in our county. The possibility of fires is the second highest concern. Some 9% of the respondents said that they do not worry about the occurrence of natural disasters.
- In responding to what kind of human disaster worries them most, the highest concerns expressed were bomb explosion and outbreak of infectious diseases such as smallpox or anthrax. The NYAM study also found that bombs/explosives (including nuclear/atomic bombs) had the highest degree of concern among their respondents, but also the highest chance of occurrence.
- Our respondents expressed a clear preference for following the order and instructions issued by the police and law enforcement agencies, while fire captains

⁸ For a complete report of the findings see Appendix (A) of the report.

were second in the hierarchy of following their orders. Politicians came in last for their orders to be followed at time of emergency.

••• Just over 40% of the respondents said that they would “rush to follow the directives” of county health officers to go to a nearby location to get medicine or vaccines. 16.6% said they would only go there when it is convenient and 38.5% said that they would get more information or advice before following the order. A very small minority of respondents (only 1.5%) said that they would definitely not go to such locations. It is interesting to note that for similar questions in the NYAM survey, only 24% responded that they would rush to the nearest location to get a vaccine for smallpox and 19% said that they would go later. 55% needed more information and 2% said that they would not definitely go there. Our results and the NYAM results were thus very similar.

••• In answering the question about how worried one would be when news of a disease outbreak gets released, only just over 33% said that they would be either extremely or very worried. For a similar question about the reaction to the news of an outbreak of smallpox and the possibility of catching it, only 31% said that they are either extremely or very worried.

5.1.2) Knowledge, attitude, and reaction towards county’s plan in time of crisis

••• More than 78% of respondents said that they would like to talk to someone to get information in case of a bio-terrorism attack.

••• In expressing preference for the person that they want to talk to at time of crisis, some 34.6% said that they would want to talk to someone who knows about the disease. Nearly 28% said that they would look on the Internet for more information. Knowing someone well or someone whom has knowledge about one’s medical history also registered significant percentage points.

••• Only about 20% of the respondents believed that Ventura County is either extremely or very prepared to deal with a terrorist attack, compared with 11% in the nationwide survey. Some 45.5% of the respondents believed that the county is either very little or not at all prepared to deal with a terrorist situation, while 55% of the respondents said that in their opinion their local governments are either not at all or very little are prepared to deal with such emergency situations. **Thus a relatively low levels of confidence in county preparedness is consistent among communities across the country.**

••• As for community knowledge of plans Ventura County agencies and community organizations have to respond to a terrorist attack, only a small group of 17.7% of the respondents answered that they have some knowledge of the county’s plans. The nationwide survey showed a similar low level of awareness about plans being developed by these agencies or organizations to deal with the kind of terrorist attack covered here. Only 26% said that they were aware of such plans.

••• Some 46.4% of respondents thought that county officials know nothing or very little about their concerns, compared with just 20.8% who thought county officials know a lot or a great deal. The nationwide survey produced a similar result. 44% of the respondents in the NYAM study believed that people making plans to deal with terrorist attacks in their community know nothing at all or a little about their concerns and the information they would want in these sort of situations. Only 22% of those respondents believed that the authorities know a lot or a great deal.

■ In answering how likely respondents think that Ventura County authorities can get medicine and vaccines to them in time in a disaster or a bio-terrorist attack, some 49.3% thought they could probably get them in time while 31.8% of respondents thought they could probably not get them in time. A relatively large proportion, some 18.9% of the respondents did know how to answer this question. In a similar question that was worded slightly different in the nationwide survey, some 73% of the respondents answered that if they decide to get a vaccine for themselves or for their family members to protect them from getting smallpox, they felt they could definitely or probably get the vaccine in time. Some 20% said that this might or might not happen and only 7% said that this probably or definitely would not happen in time to protect them from getting the disease.

■ In answering the question about what might keep them from getting the medicine or vaccines, some 41.3% said that there wouldn't be enough vaccines for everyone. 9% cited not being able to pay as a reason. 27.4% mentioned problems getting organized a problem for not getting the medicine or vaccines a problem, and 18.8% said the county wouldn't have enough staff to cater for the occasion. In a similar question in the nationwide survey, some 52% mentioned not having vaccines as a reason for not getting the vaccines in time. They mentioned logistical and manpower problem as a reason for not being able to get the vaccines in time.

■ Some 80% of the respondents either strongly or just supported the notion of medications or vaccines be distributed first to bio-terrorism victims even if it slows down vaccination of people who have not yet been exposed. In a similar manner, 94% of the respondents to the nationwide survey supported the act of providing a vaccine right away to people known to have been exposed to smallpox even if it meant slowing down vaccination of people who have not yet been exposed.

■ 56.6% thought that it was very or extremely important to have county authorities work with community members to develop plans for coping with a bio-terrorist attack situation. Only about 20% thought that such cooperation was slightly or not at all or important.

■ Some 83.1% of the respondents said that people in Ventura County could have some or a great deal of influence in developing plans with the authorities and organizations in the county. Only 11.8% said that there would be no influence at all.

The question in the nationwide survey in this area of inquiry was formulated differently and therefore the answer was quite different. In the nationwide survey the question was "how much influence do you think people can have on plans that government agencies or other community organizations are developing to deal with possible terrorist attacks?" The answer was only 27% as a great deal or a lot of influence. Some 41% answered a little or none at all.

■ The other equally important question about planning for an effective bio-defense program was to ask respondents about the importance of Ventura County officials to develop plans to deal with such a terrorist situation. Some 44% thought that this was very or extremely important, while 28.1% said that this was not important at all or slightly important. In a similar but somewhat differently posed question in the nationwide survey, some 61% of the respondents said that they think harm to their community can be reduced a lot or a great deal by having preparation ahead of time for such possible situations. Some 52.9% of Ventura county respondents for a question more similar to the nationwide survey said that potential damage can be

reduced a lot or a great deal by preparing ahead of time and this was closer to the answer obtained from the national survey.

Some 83.1% said that people can have some or a great deal of influence on plans that Ventura County agencies and organizations are developing to deal with terrorist attacks.

Some 91.2% of the respondents said that Ventura County officials can be trusted during an emergency or bio-terrorist attack, an important factor in compliance.

Some 80.1% of the respondents said they feel that Ventura County health officials know what to do in a time of emergency.

Some 87.4% said that they think Ventura County health officials would take care of them in a medical emergency or bio-terrorist attack.

Some 71.8% said that they do not think that Ventura County health officials would do anything to harm them during a medical emergency or bio-terrorist attack. However some 28.2% thought that Ventura County health officials are capable of doing harm to them during such situation.

Finally in the section dealing with attitude, knowledge and reaction of respondents to the likely development of a bio-terrorist development in the county in the next ten years, some 40.9% said that this is not likely at all. 35.5% said that it is slightly likely to happen, and only 6.1% believed that such development is very or extremely likely to occur.

5.1.3) Health and health service knowledge and attitude

Only 34.1% of the respondents have heard about “point of distribution” when such a place was described for them.

Some 27.8% of the respondents were afraid to go to a point of distribution site to get medicine or vaccination.

Some 90% said they would go to such sites if they were asked to go. However, 65.9% of respondents said that they would be worried about catching the disease from someone who already has it and 64.6% said that they would be afraid of giving it to someone.

Some 61.9% said that would be worried that getting the vaccine might make them sick and some 59.7% were worried about the side effects from the medicine or vaccine. Some 56.7% said that they are concerned about the allergic reaction or other bad reaction.

Some 62.7% of the respondents knew about the vaccination clinics that were set up last November to give people flu shots. 84.6% of the respondents knew that smallpox is a communicable disease but 57.6% of respondents did not know that getting a smallpox vaccine within four days of being exposed to the smallpox vaccine could protect one from getting sick. In comparison, the nationwide rate of not knowing that if one receives smallpox vaccine four days after being exposed it could protect the person from getting sick was 76%, much higher than the rate we obtained for our county sample.

Some 61% of respondents knew that the smallpox vaccine has some risks associated with it and just over 50% had concerns about the smallpox vaccine as an experimental drug. However, 57.3% of respondents said that if they were asked to

sign a form saying that the smallpox vaccine is an “investigational drug” that has not yet been completely tested, they would be worried but would get the smallpox vaccine anyway. Some 22.8% said that they would not be worried to get the vaccine. However, 19.9% said they would be worried and would not get the smallpox vaccine.

5.1.4) Health risks related to “shelter in place”

Some 70.2% of the respondents did not know about the difference between an atomic bomb and a dirty bomb. The rate of knowing the difference between the two in the nationwide survey was 50%, showing that the knowledge at the national level was considerably higher than our county level.

More than 58% did not know what was meant by the phrase “shelter in place.”

When asked what one would do if they were ordered to go to “shelter in place”, some 67.7% said that they would stay there as long as possible. But 16.7% said that they might stay inside for a while, 7.4% would leave immediately, 6.5% would leave to get more information/advice, and 1.6% would take another action.

The question concerning why some may leave when they are ordered to “shelter in place” provides important insight about people’s behavior during time of crisis. Knowing this will help make plans more efficient and pertinent to the expected behavior during critical times, thus ultimately increasing the rate of compliance. Some 65.8% of respondents cited reasons such as taking care of their children, adult family, others and pets as reasons to leave the building after being told to “shelter in place.” Some 10.1% said that they would feel safer in someplace else. Only 1.7% said that they would not believe the situation is dangerous and some 1.6% said that they would not be concerned about getting sick if they were to leave “shelter in place.” Only 1.2% said that they would not trust the authorities during such a time of crisis. A group of 3.1% mentioned needing their medication as a reason to leave.

In a question somewhat similar in the nationwide survey, those who answered they would leave when ordered to stay in a building that they occupy at the time of radiation exposure danger, some 68% said that they would stay inside. But 31% said that they would not obey the order- either to simply leave immediately (11%) or to seek more information (20%). The responses of why nationwide respondents would leave were similar to those of Ventura county residents: Some 66% said that they would leave for a variety of reasons related to taking care of children, family, other people, and pets, compared to the Ventura County rate of 65.8%.⁹

⁹ In an item by item comparison, there was a higher rate of taking care of children nationwide (33% as opposed to 29.6%), higher rate of taking care of adult family members nationwide (28% as opposed to 23%), higher rate of taking care of other people not in the family in the county survey (6.7% as opposed to 3%), and a much higher rate of concern about taking care of pets in the county survey (6.5% as opposed to 2%). We have not made any attempt to research the true reasons for such differences. In general terms, demographic differences and other behavioral differences that are outside the scope of this study may explain the real reasons. However, the results in totality were very similar.

5.1.5) Demographic characteristics of respondents

- 32% of respondents were between the ages of 19 to 29, 44.2% were between 30 to 49, 18.1% were between 50 to 64, and 5.7% were older than 65 years of age.
- As for the ethnic background, 51% of the respondents were Caucasian (White), 32.4% were Hispanics, Asians were 5.7%, 5.5% were African Americans, 1.9% were Native American and Pacific Islanders, and 1.7% declined to mention their ethnicity.
- 6.1% of our respondents mentioned that their annual income was less than \$15,000. 10.3% reported an annual income of \$15,000 to \$25,000. Some 32.7% said that their annual income was between \$25,000 and \$50,000. 16.6% mentioned their annual income was greater than \$50,000. Some 8.9% did not give any answer to the income question.
- In answering the question about the educational attainment of the head of household, 9.5% said that his/her education was between grades one to eight and some 1% never attended school. 15.8% mentioned an educational level between grades 9 to 12. Some 17.6% had an education at community college level and 40% of the respondents said the head of household attended college. Some 15.9% mentioned an educational level at graduate or professional school.
- 5.7% of the respondents lived in a household by themselves. 15% mentioned that two people lived in their households, 19.7% had three people, 21.9% lived in a household with four people, and 18.9% mentioned five inhabitants. Some 8.9% lived in households with six people. The remaining 9.8% lived in households with 7 or more people living in them.
- Some 7.6% of the respondents lived less than a year in Ventura County. 27.4% of them lived in the county between one to five years. 23.7% of them lived in the county between six to ten years and 41.2% of them lived in the county for a period of more than ten years.
- 48.4% of the respondents were male and the remaining 51.6% were female.
- Some 61% of the respondents said that they would like to learn about the plans that Ventura County agencies have to deal with the kinds of situations covered in the survey.

5.2) Policy implications of the study

Findings of this study show remarkable similarities with the nationwide study. In order to arrive at practical implications based on what we have learned from our study, we reported the findings in the format provided by our survey, coupled with the thematic issues that can be found in section four of this report. In section four we used nine thematic headings to report the findings of the study and included succinct interpretation where possible.¹⁰ We also used the same thematic headings for the proposed policy implications.

¹⁰ Interpretation of findings for a study can be a debatable issue and often one can make several deductions from the same event. This study tried to stay away from any quick and unwarranted conclusions. The aim was to base any conclusion, to the extent possible, on a rational interpretation of the statistical results without giving in to the temptation of providing a set of far-reaching conclusions based on limited observations.

A majority of the following suggestions propose steps that should be taken to prepare for an attack or disaster.

5.2.1) Steps to deal with existing concerns about the possibility of disasters occurring in Ventura County

- Use **community-based media** to discuss the likelihood of natural disasters and possible terrorist attacks in our area.
- Provide a **realistic assessment of potential threats** based on the specific geographic and natural characteristics of the county. These should be communicated in an open and clear way to the public.
- Such **information can be implemented as special curriculum** developed for schools or work places throughout the county.

5.2.2) Policies towards creating a higher level of trust in county offices and organizations

- There is a high level of trust and reliance on directives received from the county's police and law enforcement authorities, fire captains and public health department. We need to have such **organizations rigorously trained** for facing various potential crisis situations.
- There is a need to **develop a policy coordination system among participating agencies** (police force, county sheriff, public health and county supervisors' office) that can function effectively in time of crisis. There should be ample opportunity to stage joint practice sessions before the crisis, while noting any possible problems that may come up during these practice sessions.
- The county needs to look at the issue of trust more closely and **provide its residents with more information about its priorities and protocols during the time of crisis**. Our study showed that in general people trust the authorities in the county. However a significant minority believed that under crisis situation the county authorities might resort to policies harmful to them (28.2%). It is fair to conclude that the county authorities in Ventura County are not facing a crisis of trust in the eyes of the majority of its residents, but there is still ample reason to conclude that residents need to be assured that policies at time of crisis will not be to their detriment. This needs to be done from a moral and practical stand point.¹¹
- Our cross-tabs of respondents' fear, concerns, and trust in county authorities in general and public health department in particular provides a good road map on how to approach different demographic groups to earn their trust and calm their fears. **Steps should be taken to address concerns by understanding the source of apprehension among the different groups**. Officials should strive to resolve these issues and communicate the solution to concerned parties.

¹¹ Moral issue and practical stand should not contradict each other. For example taking certain restrictive measures that may endanger lives of certain citizens for the clear reason of saving more lives may be a difficult situation to face. This issue need to be discussed and clear instructions and protocols should be developed on how such situations will be handled. Those who carry out operations during the time of crisis and public need to know how such situations are dealt with. Lack of clarity may lead to wrong interpretation and loss of confidence in the authorities and their intentions.

5.2.3) Policies towards better dealing with expected public behavior when learn of an attack or outbreak

- Create clearinghouses for information that can be accessible from more than one media outlet (Internet, radio, print, television, etc.), and have it publicly announced so residents of the county would know where to receive information during time of crisis.
- Establish a high capacity Internet-based structure for dissemination of information and make sure the public knows about it. Make every effort to keep it functional during time of crisis.
- Identify several locations where people can go during time of crisis and have it publicly announced to people through various public media outlets.
- Provide clear protocol about what is safe to do during time of crisis, whether it is to go to a nearby location to get medicine or vaccines, or conversely, when they are recommended to “shelter in place”. This has to be done now and continue with consistent public announcement.
- Develop a clear plan that incorporates the deployment of key county agencies during time of crisis. Schedule several practice runs and record the shortcomings each time. Make sure improvements are adequately addressed after each run.
- A thorough assessment needs to be made to deal with issues of emergency preparedness in the county, and the public needs to be assured of the county’s competence during time of crisis. A large number of people are not sure if Ventura County is ready to deal with a crisis situation if/when one arises (45.5%).

5.2.5) How to employ a positive attitude of county residents in support of bio-defense management

- This survey showed that people of the county not only believe that the county should be proactive in developing plans to deal with crisis situation, but they support a greater role from the public in developing such plans. It is therefore recommended that county in general and public health in particular create a bio-defense response team formed of volunteers that can have a central role in helping the victims and assist the career personnel at time of crisis.
- The public should be invited to participate in planning discussions. These discussions may be coordinated by the public health department, in collaboration with city halls and other civic and non-profit organizations.
- Train select community members (paid and volunteer) to be able to talk and give information to the public during time of crisis. These people should be easily reachable and available when their services are needed, and ample practice sessions should be conducted. At time of crisis the volunteers should be mobilized and directed under supervision of officers that they worked with prior to such time.
- Community members could be called “Volunteer Rapid Response Team” or something of such nature.

5.2.6) Improving the image of the county authorities and public health as effective organizations capable of dealing with bio-terrorism

The issue of image building should not be misconstrued as policies that do not serve a tangible purpose for our community and by their very nature are contradictory to public policies. Since the issue at hand is not a mere cosmetic makeover of an organization in isolation, it is to improve the synergy and capabilities of the county public health and emergency management combined. These improvements should be conveyed to the public so they can be assured that their county is prepared to deal with potential harms effectively at time of crisis.

5.2.7) Improving the public's knowledge about bio-terrorism and defense plans

In order to better inform the public on the impact of bio-terrorism and the provisions that the county has put in place to deal with a crisis situation, we recommend the following:

- Create and identify several "safe places" for people can go during time of crisis.
- Inform the public that "safe places" or "shelter in place" are safe havens in the event of a dirty bomb explosion (or other emergencies). As planners, note these safe havens need to be able to evacuate people in the event of an emergency.
- All locations should be feasible for large groups of people and should include places people frequent or would want to go in time of crisis. A broad array of places fall into this category including: work sites, shops, malls, schools, day care centers, hospitals and clinics, recreational and entertainment facilities, government buildings, apartment buildings, and transportation terminals. Managers of such places should be trained about what to do in time of crisis.
- Public announcements should be made in advance to identify "safe places." Public media such as local television and radio stations are crucial at time of crisis, and newspaper could be used in advance.
- Develop back-up systems that will maintain general telephone and e-mail service in the event of a large-scale emergency and/or main system failure.

5.2.8) Improving the level of cooperation and compliance with public health authorities' directives and recommendations at time of crisis

- Earning the public's trust can only be obtained by engaging them in frank discussions about the potential dangers of bio-terrorism attacks. This should be discussed from various perspectives to the extent that relate to the county and its economic, environmental and social aspects of their lives.
- The use of public awareness films and analysis of other recent disasters in other parts of the world, including lessons learned and mistakes made, would show our community that they have a sentient local government and public health authority that is serious about doing what it takes to protect their safety and well-being. Transparency about mistakes during time of crisis elsewhere will help people trust their local authority and comply with their directives.
- There is a need to involve a broad spectrum of community residents in an array of community preparedness planning so they will be confident that planners are familiar with their concerns as it relates to the needs of their family members, relatives and neighbors.



Appendix A

Table of responses to Ventura County Terrorism Preparedness Survey: Public Perception of the Bio-terrorism Readiness

1. Level and Types of Concerns

Q1. Among the following natural disasters, which one do you **most** worry about (if at all)

Earthquakes	62.5%
Mudslides	6.7%
Fires	16.7%
Tsunamis	3.2%
I do not worry about these things	9.0%
Other	1.9%

Q2. Among the following *human* disasters or terrorist events, are you Very Worried, Somewhat Worried or Not Worried about **Accidents such as chemical spills?**

Very Worried	8.2%
Somewhat worried	44.3%
Not worried	47.5%

Q3. Among the following *human* disasters or terrorist events, are you Very Worried, Somewhat Worried or Not Worried about **Terrorist chemical or gas attacks**

Very Worried	9.4%
Somewhat worried	49.4%
Not worried	41.2%

Q4. Among the following *human* disasters or terrorist events, are you Very Worried, Somewhat Worried or Not Worried about **Terrorist Bombs or explosions**

Very Worried	15.7%
Somewhat worried	46.3%
Not worried	38.0%

Q5. Among the following *human* disasters or terrorist events, are you Very Worried, Somewhat Worried or Not Worried about **Bio-terrorist attacks like smallpox, anthrax or other viruses**

Very Worried	15.6%
Somewhat worried	48.7%
Not worried	35.7%

Q6. Among the following *human* disasters or terrorist events, are you Very Worried, Somewhat Worried or Not Worried about **Terrorist hostage situations**

Very Worried	10.2%
Somewhat worried	38.3%
Not worried	51.5%

Q7. Whose instructions would you be **most** likely to follow in the case of a terrorist attack?

Sheriff or other Law Enforcement	68.1%
Fire Captain	15.8%
Health Personnel, like the County Health Officer	11.2%
Politicians (Members of the Board of Supervisors, local legislators)	3.6%
Other	1.3%

Q8.If the County Health Officer announced that you and your neighbors should go to a nearby location to get medicine or a vaccine, which would you be likely to do:

Rush to go there right away	42.4%
Go to the location when it is convenient	16.6%
Definitely not go to the location	1.5%
Try to get more information or advice	38.5%
Don't Know	1.0%

Q9.If you hear about a disease outbreak, in general how worried would you be about catching the disease? Would you be:

Not at all worried	6.9%
Slightly worried	28.6%
Moderately worried	31.3%
Very worried	23.6%
Extremely worried	9.6%

2. Knowledge, Attitude, and Reaction towards County's Plan in Time of Emergency

Q10.Which would you want to do in case of a bio-terrorism event?

Talk with someone to get information	78.6 %
I would decide on my own what to do	19.9%
Other	1.5%

Q11. If you want to talk with someone to get information and advice, would you

Talk with someone you know well	19.2%
Talk with someone who already knows your medical history and medical problems	15.0%
Talk with someone who knows a lot about the disease	34.6%
Use internet to find more information	27.6%
Other	3.6%

Q12. How prepared do you think Ventura County is to deal with terrorist attacks? Is Ventura County:

Not at all prepared	18.0%
A little prepared	27.5%
Moderately prepared	34.3%
Very prepared	15.9%
Extremely prepared	4.4%

Q13. Are you familiar with the plans being developed by any of Ventura County agencies and community organizations to *respond to terrorist attacks*?

Yes	17.7%
No	69.9%
Don't Know	12.4%

Q14. How much do you think that Ventura County officials know about your concerns and information needs?

Nothing	16.6%
A little	29.8%
A moderate amount about	32.9%
A lot	11.5%
A great deal	9.3%

Q15. If a disaster or bio-terrorism attack happened, how likely do you think it is that Ventura County could get medications or vaccines to you in time to protect you and the people you care about? Do you think you:

Probably could get them in time	49.3%
Probably could not get them in time	31.8%
Don't Know	18.9%

Q16. What do you think might keep you from getting the medicine or vaccines you would need?

There won't be enough vaccine for everyone who needs it	41.3%
I couldn't afford to pay for the vaccine	9.0%
Problems getting organized	27.4%
County won't have enough staff	18.8%
Other	3.5%

Q17. How strongly would you support or oppose giving medicines or vaccines first to bio-terrorism victims even if it slows down vaccinating people who have not been exposed? Would you:

Strongly Oppose	4.0%
Oppose	17.2%
Support	49.7%
Strongly Support	29.2%

Q18. How important is it for Ventura County officials to work with people in the community to develop plans for possible terrorist attacks to deal with these kinds of situations? Is it:

Not at all important	5.4%
Slightly important	14.5%
Moderately important	21.2%
Very important	36.1%
Extremely important	20.5%
Don't Know	2.3%

Q19. How much influence do you think people in the community can have on the plans that Ventura County agencies and organizations are developing to deal with terrorist attacks? Do you think you can have:

A great deal of influence	30.6%
Some influence	52.5%
No influence at all	11.8%
Don't Know	5.1%

Q20. How important is it for people like you to help Ventura County officials develop plans to deal with the kinds of situations we were talking about today?

Not at all important	4.9%
Slightly important	23.5%
Moderately important	28.0%
Very important	30.5%
Extremely important	13.2%

Q21. How much do you think Ventura County officials can reduce potential damage by preparing ahead of time to deal with it?

Not at all	4.5%
A little	15.7%
A moderate amount	27.0%
A lot	29.4%
A great deal	23.5%

Q22. In a medical emergency or bio-terrorism event do you think that Ventura County health officials Can be trusted:

Yes	91.2%
No	8.8%

Q23. In a medical emergency or bio-terrorism event do you think that Ventura County health officials Will know what to do:

Yes	80.1%
No	19.9%

Q24. In a medical emergency or bio-terrorism event do you think that Ventura County health officials Will be truthful:

Yes	75.8%
No	24.2%

Q25. In a medical emergency or bio-terrorism event do you think that Ventura County health officials Will care about people like me:

Yes	87.4%
No	12.6%

Q26. In a medical emergency or bio-terrorism event do you think that Ventura County health officials Might decide to do something they know would harm people like me:

Yes	28.2%
No	71.8%

Q27. How likely do you think it is that a terrorist attack will happen somewhere in Ventura County during the next ten years? Is it:

Not at all likely	40.9%
Slightly likely	35.5%
Moderately likely	16.5%
Very likely	5.7%
Extremely likely	1.4%

3. Health and Health Service Knowledge and Attitudes

[READ] An outbreak of diseases that can be spread from one person to another could happen. Ventura County Health officials might ask you to go to “Point of Distribution Sites” to get medicines if an outbreak happens.

Q28. Before today, have you heard the phrase “Point of Distribution Site”?

Yes 34.1%

No [INCLUDES “I don’t think so”
AND SIMILAR RESPONSES] 65.9%

Q29. Would you be afraid to go to a Point of Distribution Site to get medicine or a vaccination?

Yes 27.8%

No [INCLUDES “I don’t think so”
AND SIMILAR RESPONSES] 72.2%

Q30. Would you go to a Point of Distribution Site to get medicine or a vaccination?

Yes 90.0%

No [INCLUDES “I don’t think so”
AND SIMILAR RESPONSES] 10.0%

Q31. Would you be worried about catching the disease from someone who already had it?

Yes 65.9%

No [INCLUDES “I don’t think so”
AND SIMILAR RESPONSES] 34.1%

Q32. Would you be worried you might have the disease and give it to someone?

Yes 64.6%

No [INCLUDES “I don’t think so”
AND SIMILAR RESPONSES] 35.4%

Q33. Would you be worried about going out into a dangerous situation?

Yes 71.2%

No [INCLUDES “I don’t think so”
AND SIMILAR RESPONSES] 28.8%

Q34. Would you be worried that getting the vaccine might make you sick?

Yes 61.9%

No [INCLUDES "I don't think so"
AND SIMILAR RESPONSES] 38.1%

Q35. Would you be worried about side effects from the medicine or vaccine?

Yes 59.7%

No [INCLUDES "I don't think so"
AND SIMILAR RESPONSES] 40.3%

Q36. Would you be worried about an allergic or other bad reaction?

Yes 56.7%

No [INCLUDES "I don't think so"
AND SIMILAR RESPONSES] 43.3%

Q37. Did you know about the County's flu vaccination clinics that were set up last November to give people flu shots?

Yes 62.7%

No [INCLUDES "I don't think so"
AND SIMILAR RESPONSES] 37.3%

Q38. Smallpox is one type of communicable disease. Did you know that smallpox is a disease that can be spread from one person to another?

Yes 84.6%

No [INCLUDES "I don't think so"
AND SIMILAR RESPONSES] 15.4%

Q39. Did you know that getting the smallpox vaccine within four days of being exposed to the smallpox virus could protect a person from getting sick from smallpox?

Yes 42.4%

No [INCLUDES "I don't think so"
AND SIMILAR RESPONSES] 57.6%

Q40. Did you know that smallpox vaccines have some risks associated with them?

Yes 61.0%

No [INCLUDES "I don't think so"
AND SIMILAR RESPONSES] 39.0%

Q41. Would you have concerns that the smallpox vaccine is an experimental drug?

Yes 50.5%

No [INCLUDES "I don't think so"
AND SIMILAR RESPONSES] 49.5%

Q42. If you were asked to sign a form saying that the smallpox vaccine is an "investigational drug" that has not yet been completely tested, would you be:

Not worried and get the smallpox vaccine 22.8%

Worried, but I would get the smallpox
vaccine anyway 57.3%

Worried, and I would not get the smallpox vaccine 19.9%

4. Health Risks Related to "Sheltering in Place"

Q43. Before today, did you know the difference between a “dirty bomb” and an explosive atomic bomb?

Yes	29.8%
No [INCLUDES “I don’t think so” AND SIMILAR RESPONSES]	70.2%

Q44. Before today, had you heard the phrase “shelter in place?”

Yes	41.8%
No [INCLUDES “I don’t think so” AND SIMILAR RESPONSES]	58.2%

Q45. Pretend for a moment that County health officials declare a state of emergency and telephone lines were jammed so you cannot reach anyone? What would you do if everyone were ordered to “shelter in place” for protection from radiation or a chemical spill? Would you:

Stay inside for a while	16.7%
Stay inside as long as authorities tell me to	67.7%
Leave immediately	7.4%
Leave to get more information/advice	6.5%
Other	1.6%

Q46. If you decide to leave the building after being told to shelter in place, why would you leave?

To find or take care of my children	29.6%
To find or take care of adult family members	23.0%
To find or take care of other people not in my family	6.7%
To find or take care of pets	6.5%
To meet job responsibilities	2.1%
To get medications, food, water, or other needed supplies	13.9%

To feel safer someplace else	10.1%
Would not believe the situation is dangerous	1.7%
Would not be concerned about getting sick	1.6%
Because of a medical condition that would make me leave the building	3.1%
Would not trust the authorities	1.2%
Other:	0.6%

5. Demographics

Q47. Including yourself, how many people live in your household?

1	5.7%
2	15.0%
3	19.7%
4	21.9%
5	18.9%
6	8.9%
7	4.7%
8	3.0%
9	1.9%
11	0.2%

Q48. What is your age group

Less than 18 years	0.9%
18-29 years	31.1%
30-49 years	44.2%
50-64 years	18.1%
65 years or older	5.5%
No answer	0.2%

Q49. What is your ethnic background?

Caucasian (White)	51.0%
African-American	5.5%
Hispanic / Latino	32.4%
Asian	5.7%
Native-American	0.4%
Pacific Islander	1.5%
Other	1.7%
No answer	1.7%

Q50. What is the approximate annual income of your household?

Less than \$15,000	6.1%
\$15,000-\$25,000	10.3%
\$25,000-\$50,000	32.7%
\$50,000-\$100,000	25.4%
More than \$100,000	16.6%
No answer	8.9%

Q51. How many years of education do you have?

Grade school (1-8)	9.5%
High School (9-12)	15.8%
Community College (12-14)	17.6%
College/University (12-16)	40.3%
Graduate/Professional School (16+)	15.9%

Never attended School	1.0%
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Q52. How many years have you lived in Ventura County?

Less than one year	7.6%
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1 - 5 years	27.4%
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6 - 10 years	23.7%
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More than 10 years	41.2%
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6. Closing

Q53. Would you like to learn more about the plans that Ventura County agencies or community organizations have to deal with the kinds of situations we have been talking about today?

Yes	61.0%
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No	39.0%
----	-------

Respondent's Gender.

Male	48.4%
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Female	51.6%
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Appendix B

Cross-tabulation of Selected Number of Answers Across Different Demographic Characteristics

A general description:

Employing cross-tabulation of a survey across different characteristics of the sample (with inference to the population at large) can provide valuable insight about different groups and how their responses may differ across different possible answers to a question. Statistically significant results can be used to draw appropriate conclusions and device measured and pertinent policy implications. However, one has to be careful about drawing calculation when the results are not statistically significant. Having multiple responses for a particular question may skew response of different groups and creates very small cells of answers (with regards to size of the group and its breakdown into different possible answers) which cannot be accepted as statistically significant. In below only the findings that passed the test of significance have been reported. There should however be mentioned that a number of other cross-tabs have been run but we ignored their reporting for the given reasons.

Q5. How worried are you about bio-terrorist attacks such as smallpox, anthrax or other viruses? Across Q48. What is your age category?

Cross-tab

		Q48. What is your age category?				Total
		19-29 years	30-49 years	50-64 years	65 years or older	
Very Worried	Count	68	71	13	9	161
		42.2%	44.1%	8.1%	5.6%	100.0%
		20.7%	15.6%	7.0%	15.5%	15.7%
Somewhat Worried	Count	160	212	83	42	497
		32.2%	42.7%	16.7%	8.5%	100.0%
		48.6%	46.7%	44.6%	72.4%	48.4%
Not worried	Count	101	171	90	7	369
		27.4%	46.3%	24.4%	1.9%	100.0%
		30.7%	37.7%	48.4%	12.1%	35.9%
Total	Count	329	454	186	58	1027
		32.0%	44.2%	18.1%	5.6%	100.0%
		100.0%	100.0%	100.0%	100.0%	100.0%

Description of results:

The relationship between the age and worries regarding bio-terrorist attacks is very significant (.000). It is interesting to note that as the age increases people get less and less worried about any bio terrorist attacks. The youngest age group (19-29 years) was most worried about bio-terrorist attacks.

Q5. How worried are you about bio-terrorist attacks such as smallpox, anthrax or other viruses? Across Q49. What is your ethnic background?

Cross-tab

		Q49. What is your ethnic background?							Total	
		Caucasian (White)	African-American	Hispanic/Latino	Asian	Native-American	Pacific Islander	Other		No answer
Very Worried	Count	56	4	80	12	3	2	3	1	161
		34.8%	2.5%	49.7%	7.5%	1.9%	1.2%	1.9%	.6%	100.0%
Somewhat Worried	Count	269	31	146	31	1	6	8	11	503
		53.5%	6.2%	29.0%	6.2%	.2%	1.2%	1.6%	2.2%	100.0%
Not worried	Count	202	21	107	16		8	7	6	367
		55.0%	5.7%	29.2%	4.4%		2.2%	1.9%	1.6%	100.0%
Total	Count	527	56	333	59	4	16	18	18	1031
		51.1%	5.4%	32.3%	5.7%	.4%	1.6%	1.7%	1.7%	100.0%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Description of results:

One out of four Hispanic/Latinos (24%) were very worried about bio-terrorist attacks and this ration was significantly higher than the ration one out of 10 (10.6%) of Caucasians. Due to small number of Native Americans the level of significance is not reported.

Q6. How worried are you about terrorist hostage situations? Across Q48. What is your age category?

Cross-tab

		Q48. What is your age category?				Total
		19-29 years	30-49 years	50-64 years	65 years or older	
Very Worried	Count	55	41	4	3	103
		53.4%	39.8%	3.9%	2.9%	100.0%
Somewhat Worried	Count	123	174	63	29	389
		31.6%	44.7%	16.2%	7.5%	100.0%
Not worried	Count	151	239	119	27	536
		28.2%	44.6%	22.2%	5.0%	100.0%
Total	Count	329	454	186	59	1028
		32.0%	44.2%	18.1%	5.7%	100.0%
		100.0%	100.0%	100.0%	100.0%	100.0%

Description of results:

The relationship between the age of the respondents and being worried concerning a terrorist hostage situation is very significant (.000). The majority (52.1%) of the respondents were not worried at all about a terrorist hostage situation. However, out of this group (not worried about the situation) nearly half (44.6%) were between the ages of 30 to 49 years.

Q6. How worried are you about terrorist hostage situations? Across Q50. Approximate annual income of your household?

Cross-tab

		Q50. Approximate annual income of your household?					No answer	Total
		Less than \$15,000.00	\$15,000.00 - \$25,000.00	\$25,000.00 - \$50,000.00	\$50,000.00- \$100,000.00	More than \$100,000.00		
Very Worried	Count	11	32	20	18	16	6	103
		10.7%	31.1%	19.4%	17.5%	15.5%	5.8%	100.0%
		17.5%	29.9%	5.9%	6.9%	9.4%	6.5%	10.0%
Somewhat Worried	Count	30	36	122	100	70	36	394
		7.6%	9.1%	31.0%	25.4%	17.8%	9.1%	100.0%
		47.6%	33.6%	36.1%	38.3%	41.2%	39.1%	38.2%
Not worried	Count	22	39	196	143	84	50	534
		4.1%	7.3%	36.7%	26.8%	15.7%	9.4%	100.0%
		34.9%	36.4%	58.0%	54.8%	49.4%	54.3%	51.8%
Total	Count	63	107	338	261	170	92	1031
		6.1%	10.4%	32.8%	25.3%	16.5%	8.9%	100.0%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Description of results:

There is a significant relationship between the income of the household and being worried concerning terrorist hostage situation (.000). People in the income bracket of 15,000 to \$25,000, were most worried about the terrorist hostage situation.

Q6. How worried are you about terrorist hostage situations? Across Q54. Respondent's Gender

Cross-tab

		Q54. Respondents Gender		Total
		Male	Female	
Very Worried	Count	41	61	102
		40.2%	59.8%	100.0%
		8.3%	11.6%	10.0%
Somewhat Worried	Count	180	207	387
		46.5%	53.5%	100.0%
		36.4%	39.4%	38.0%
Not worried	Count	273	257	530
		51.5%	48.5%	100.0%
		55.3%	49.0%	52.0%
Total	Count	494	525	1019
		48.5%	51.5%	100.0%
		100.0%	100.0%	100.0%

Description of results:

There appears to be a significant relationship between gender of respondents and level of being worried with regard to a hostage situation (.069). In general only one tenth (10%) of respondents were very worried about the hostage situation. However, the study found that nearly two out of three of those who were very worried happened to be females (61%).

Q22. In a medical emergency or bio-terrorism event do you think that Ventura County health officials can be trusted? Across Q50. Approximate annual income of your household?

Cross-tab

		Q50. Approximate annual income of your household?					No answer	Total
		Less than \$15,000.00	\$15,000.00 - \$25,000.00	\$25,000.00 - \$50,000.00	\$50,000.00- \$100,000.00	More than \$100,000.00		
Yes	Count	55	98	328	231	139	83	934
		5.9%	10.5%	35.1%	24.7%	14.9%	8.9%	100.0%
		88.7%	95.1%	97.0%	88.5%	82.2%	90.2%	91.1%
No	Count	7	5	10	30	30	9	91
		7.7%	5.5%	11.0%	33.0%	33.0%	9.9%	100.0%
		11.3%	4.9%	3.0%	11.5%	17.8%	9.8%	8.9%
Total	Count	62	103	338	261	169	92	1025
		6.0%	10.0%	33.0%	25.5%	16.5%	9.0%	100.0%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Description of results:

The study shows a significant difference in relationship between level of income of the respondents and their trust on Ventura County health official in case of a terrorist attack (.000). Among people who indicated that they can trust Ventura County health officials in case of a terrorist attack, people in income category of more than \$100,000 had the least level of trust and those in income category of \$25,000- \$50,000 expressed the most degree of trust.

Q22. In a medical emergency or bio-terrorism event do you think that Ventura County health officials can be trusted? Across Q54. Respondent's Gender

Cross-tab

		Q54. Respondent's Gender		Total
		Male	Female	
Yes	Count	437	487	924
		47.3%	52.7%	100.0%
		89.0%	93.3%	91.2%
No	Count	54	35	89
		60.7%	39.3%	100.0%
		11.0%	6.7%	8.8%
Total	Count	491	522	1013
		48.5%	51.5%	100.0%
		100.0%	100.0%	100.0%

Description of results:

The relationship between the gender of the respondents and their trust on the Ventura County health official in case of a bio-terrorism attack is very significant (.016). While three out of 5 male (60.7%) respondents said that they do NOT trust the Ventura County health official in case of a bio-terrorism attack, two out of 5 (39.3%) of female respondents expressed such a distrust.

**Q1. Among the following natural disasters, which one do you most worry about?
Across Q48. What is your age category?**

Cross-tab

		Q48. What is your age category?				Total
		19-29 years	30-49 years	50-64 years	65 years or older	
Earthquakes	Count	218	275	116	39	648
		33.6%	42.4%	17.9%	6.0%	100.0%
		66.3%	61.0%	63.0%	66.1%	63.3%
Mudslides	Count	19	32	9	9	69
		27.5%	46.4%	13.0%	13.0%	100.0%
		5.8%	7.1%	4.9%	15.3%	6.7%
Fires	Count	42	86	36	4	168
		25.0%	51.2%	21.4%	2.4%	100.0%
		12.8%	19.1%	19.6%	6.8%	16.4%
Tsunamis	Count	13	12	7	1	33
		39.4%	36.4%	21.2%	3.0%	100.0%
		4.0%	2.7%	3.8%	1.7%	3.2%
I don't worry about these things	Count	34	37	15	6	92
		37.0%	40.2%	16.3%	6.5%	100.0%
		10.3%	8.2%	8.2%	10.2%	9.0%
Other	Count	3	9	1		13
		23.1%	69.2%	7.7%		100.0%
		.9%	2.0%	.5%		1.3%
Total	Count	329	451	184	59	1023
		32.2%	44.1%	18.0%	5.8%	100.0%
		100.0%	100.0%	100.0%	100.0%	100.0%

Description of results:

In regard to being most worried about earthquake, there was no significant difference between different age groups. Due to small number of Native Americans the level of significance is not reported.

**Q1. Among the following natural disasters, which one do you most worry about?
Across Q54. Respondent's Gender**

Cross-tab

		Q54. Respondents' Gender		Total
		Male	Female	
Earthquakes	Count	295	343	638
		46.2%	53.8%	100.0%
		60.5%	65.2%	62.9%
Mudslides	Count	35	34	69
		50.7%	49.3%	100.0%
		7.2%	6.5%	6.8%
Fires	Count	87	80	167
		52.1%	47.9%	100.0%
		17.8%	15.2%	16.5%
Tsunamis	Count	16	17	33
		48.5%	51.5%	100.0%
		3.3%	3.2%	3.3%
I don't worry about these things	Count	41	46	87
		47.1%	52.9%	100.0%
		8.4%	8.7%	8.6%
Other	Count	14	6	20
		70.0%	30.0%	100.0%
		2.9%	1.1%	2.0%
Total	Count	488	526	1014
		48.1%	51.9%	100.0%
		100.0%	100.0%	100.0%

Description of results:

There was no significant difference between gender and being worried about earthquakes. Due to small number of Native Americans the level of significance is not reported.

There was no significant difference between gender and being worried about earthquakes. Due to small number of Native Americans the level of significance is not reported.