

# **CITY OF BRANDON (BEAP) SAFETY ALERT SYSTEM REPORT**

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**Submitted to: The City of Brandon**



**November 2003**

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## EXECUTIVE SUMMARY

*The threat of a public disaster caused by an industrial accident or weather-related conditions is disconcerting to almost half of the population of the City of Brandon, and while citizens reported varying levels of emergency preparedness, virtually all residents demonstrated support for an enhanced public emergency alerting system.*

*The Brandon Emergency Support Team (BEST) program is well known among almost area residents. The Emergency Quick Reference Guide, the Emergency Preparedness Handbook and the Public Service Announcement were effective in informing the public about the BEST program and over half of Brandon residents expressed familiarity with these promotional materials. Indeed, over the course of the research, close to three-quarters of the Brandon population indicated receiving recent information about the BEAP program.*

*Levels of public awareness regarding the “Shelter in Place” program were significantly lower than BEST awareness and remained fairly constant over the various waves of data collection. Furthermore, although one-quarter of survey respondents stated that they were familiar with this program, a closer examination of citizens’ comprehension regarding the program revealed that only a small number of respondents had embraced the recommended course of actions recommended by the “Shelter in Place” program.*

*Subsequent to the first test, alarm participation — that is the percentage of residents in the right area, at the right time who actually heard the alarm — was fairly consistent with just over one-third of qualified residents reporting that they heard the siren. The sixth wave of data collection tested three different alarm sounds with respondents most likely to report that they had heard the Alternating Steady Tone on the occasion of this test. These same respondents, however, selected the Westminster Chime as being most likely to gain their own attention in the event of an emergency.*

*The study revealed that the alarm sound was considerably more effective than the strobe light in alerting the public of a large-scale emergency.*

*Brandon residents also described their reactions upon hearing the alarm tests, while those who had not heard the alarm anticipated their responses to a siren. By far, most citizens respond to an emergency alarm by turning on their radios. Less frequently noted responses also included going outside to invest, turning on the television or closing their windows and doors. Several residents reported that they were aware of the test, and consequently did not react.*

## 1.0 BACKGROUND AND RESEARCH METHODOLOGY

Probe Research Inc. has conducted six waves of research on behalf of the City of Brandon Emergency Alerting Program concerning emergency preparedness and tests of the recently constructed public warning alarm siren and strobe light located at the 900 block of Douglas Avenue. The alarm tests were conducted on six occasions with varying weather conditions.

Quantitative surveys were conducted among the adult population (aged 18 years and older) residing in appropriate area. The overall margin of error is  $\pm 6.2$  percent, 19 times out of 20. Data was collected using a state-of-the-art Computer Assisted Telephone Interviewing (CATI) system. Data analysis was conducted using SPSS10 and other packaged software. Telephone interviews were conducted in the hours and days immediately following the test times which were:

- ❖ Test 1: Monday June 9, 2003 at approximately 1:30 p.m.
- ❖ Test 2: Friday June 20, 2003 at approximately 11:30 a.m.
- ❖ Test 3: Wednesday July 2, 2003 at approximately 6:30 p.m.
- ❖ Test 4: Wednesday September 24, 2003 at approximately 3:00 p.m.
- ❖ Test 5: Friday, October 17, 2003 at approximately 6:45 p.m.
- ❖ Test 6: Wednesday October 29, 2003 at approximately 7:15 p.m.

The methodology for the 5<sup>th</sup> and 6<sup>th</sup> waves of the BEAP test varied from the other rounds of data collection. Data collection for waves 1-4 and wave 6 was restricted to the geographic area to be served by the alarm, this being Brandon bounded by First Street to the West and Richmond and Rosser Avenues to the south and north respectively. For the fifth test, however, 125 respondents or half of the n=250 sample resided within the previously defined area, while the remaining respondents were randomly and representatively drawn from other regions of Brandon.

Respondents residing within the test region were asked questions pertaining to the alarm, while residents of the other areas of Brandon were presented with a series of questions regarding general alarm awareness and emergency preparedness. All of the questions presented to the “other Brandon regions respondents” had been asked of the target area respondents in the first wave of data collection in June of this year.

The sixth and final wave of data collection focused primarily on alarm participation, with the addition of new questions to address respondents' views on the clarity and effectiveness of the three different alarms that were sounded sequentially on the sixth and final test date. Some previously utilized items were excluded from the final test questionnaire to accommodate the testing of three distinct alarm sounds.

This final report provides a comparative analysis of the six rounds of data collection where appropriate. Notable deviations from the norm are highlighted in the report to demonstrate variances in responses among key sub-populations.

## 2.0 RESEARCH RESULTS

### 2.1 Emergency-Related Public Concerns

This section of the report provides a summary of public views regarding the likely occurrence of a large-scale public emergency affecting several homes and businesses in the City of Brandon. Those respondents anticipating such an event were asked to identify what type of emergency or disaster they thought was most likely to occur in Brandon.

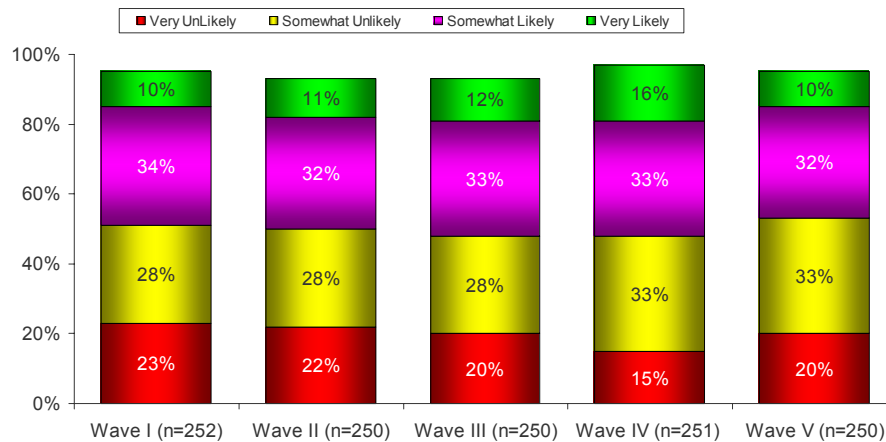
#### 2.1.1 Likelihood of Public Emergency

When asked whether they thought that at some point in the next five years the City of Brandon would likely or unlikely experience a large-scale public emergency affecting several homes or businesses, respondents were relatively split in their views over the five waves of the study.

Beap Wave 6

## Likelihood of Public Emergency

**S1.Q1.** "I would like to begin by asking whether you think that at some point in the next five years the City of Brandon is likely or unlikely to experience a large-scale public emergency affecting several homes or businesses? Is that very or somewhat?"



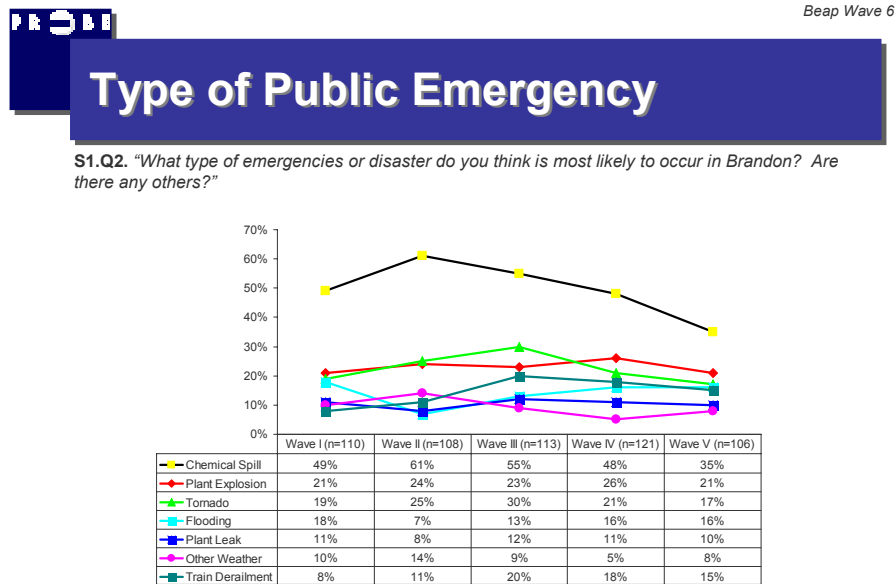
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- ❖ While nearly half of the respondents surveyed (45%) have concerns about a major emergency occurring in Brandon in the foreseeable future, just over one-in-ten (12%) feel there is a strong likelihood of such an event.

- ❖ Overall, younger males aged 18 to 34 years were the most skeptical about such an occurrence (62% “Unlikely”) while those most likely to anticipate such a large scale public emergency were females over 55 years of age (48% “Likely”).

### 2.1.2 Type of Public Emergency

Respondents were asked what type of emergency or disaster they thought would most likely occur in Brandon.



S1.Q2. “What type of emergencies or disaster do you think is most likely to occur in Brandon? Are there any others?”

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- ❖ In all waves of the study, “chemical spill” was offered most frequently by fully one-half (50%) of respondents overall. Interestingly, the proportion of residents fearing a chemical spill declined steadily following the second alarm test.
- ❖ “Plant Explosion” (23%) and “Tornado” (23%) were mentioned by an equal number of survey respondents overall while other less frequently mentioned disasters included “Train Derailment” (15%), “Flooding” (14%), “Plant Leak” (11%), and “Fire” (7%).
- ❖ “Chemical Spill” was mentioned most frequently by both adult males and females aged 55 years and over (64% and 49% respectively).
- ❖ The likelihood of mentioning “Industrial Plant Explosion” was most evident among middle-aged respondents aged 35 to 54 years (Males 28%, Females 26%).



## 2.2 Emergency-Related Public Actions

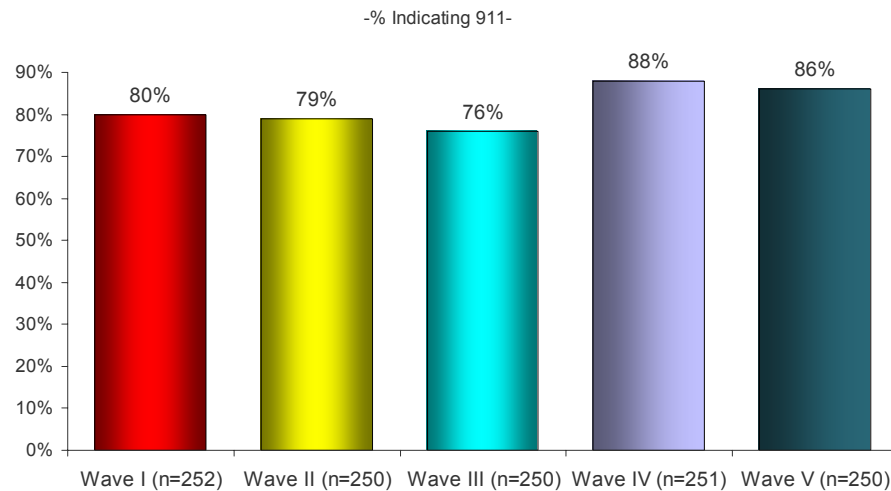
This section of the study examines public actions in the event of an emergency or disaster.

### 2.2.1 Top-of-Mind Emergency Contact

# Top-of-Mind Emergency Contact

Beap Wave 6

S13.Q2. "How would you contact emergency services if help were needed?"

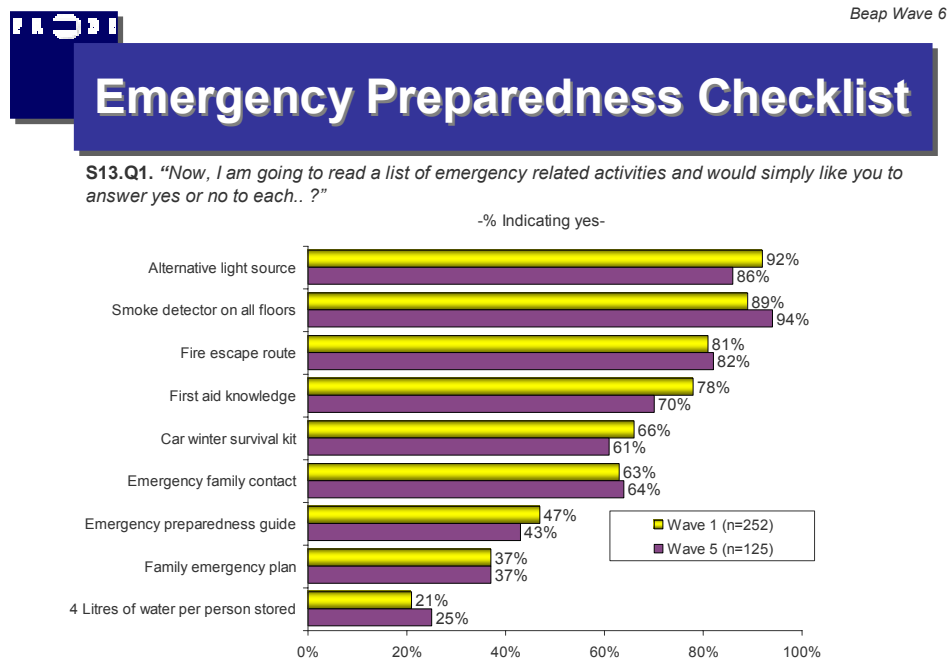


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- ❖ Four-in-five respondents (82%) indicated that they would contact 911 in the event of an emergency.
- ❖ The likelihood of mentioning 911 as the emergency contact increased in the latter waves of the study rising from 79 percent in waves one to three to 87% in waves four to six of the data collection.

### 2.3 Emergency Preparedness Program Awareness and Support

This section of the study presents a summary of awareness levels among Brandon residents regarding emergency preparedness programs currently in place in the City of Brandon and examines support levels for new emergency programs. This information was collected in waves one and five of the study. In the first wave, residents of the alarm test area were asked this question, while in the fifth wave of data collection, this question was asked only of those residents residing outside the test area.



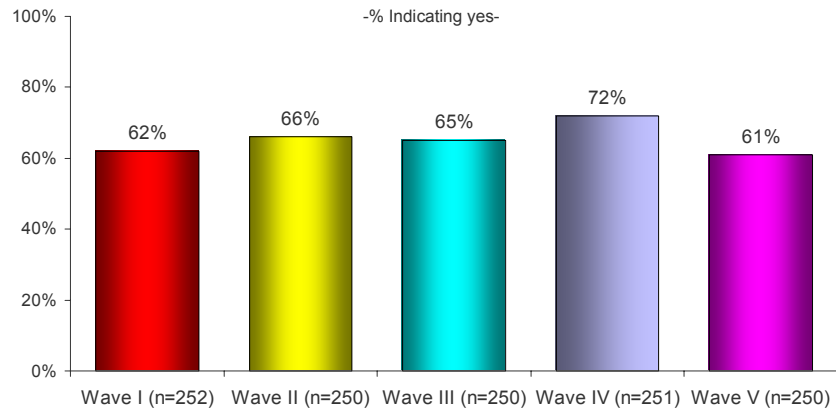
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- ❖ “Alternative light source”, “Smoke detector on all floors”, and “Fire escape route” were the three most popular responses offered by Brandon residents in both waves of data collection.
- ❖ “First aid knowledge”, “Car winter survival kit” and “Emergency family contact” were moderately popular responses provided by close to two-thirds of respondents.
- ❖ The lowest frequency responses were “Emergency preparedness guide”, “Family emergency plan” and “Four liters of water stored”. Just one-quarter of respondents indicated that they had a sufficient supply of water stored in the event of an emergency.

### 2.3.1 B.E.S.T. Awareness



S2.Q4. "Please tell me, have you heard of the "Brandon Emergency Support Team" or "BEST"?"

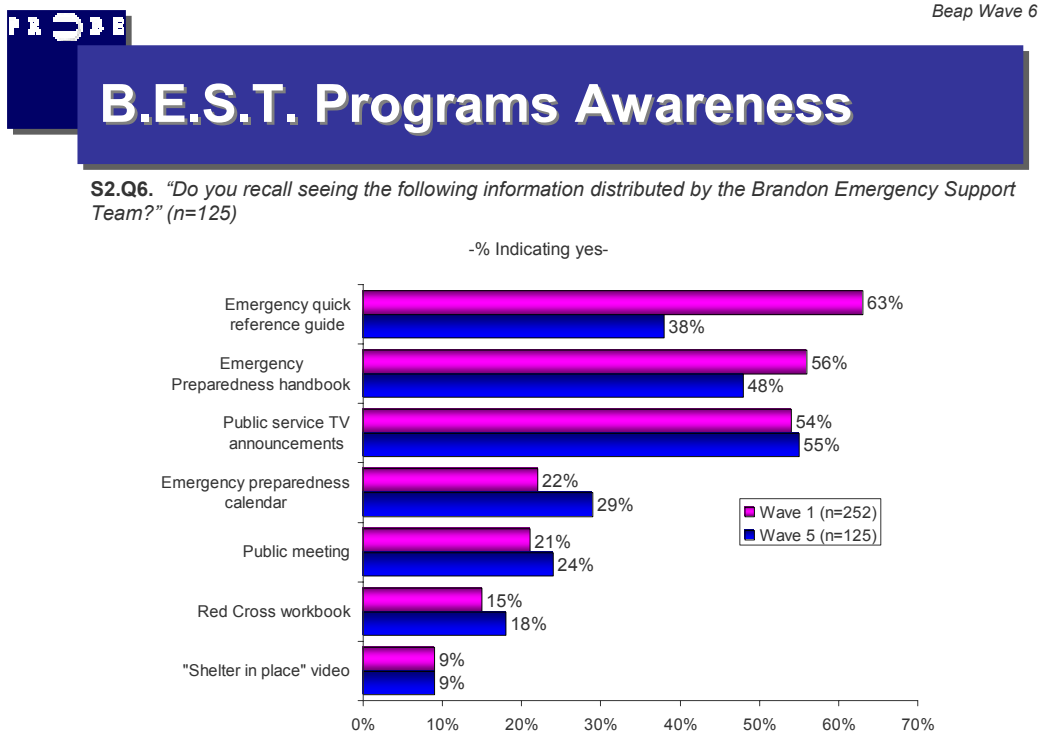


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- ❖ Levels of awareness with the BEST program appears to have increased somewhat over the course of the five waves of data collection.
- ❖ The apparent drop in awareness in wave five is due to the inclusion of residents of other areas of Brandon. Those residing in the test area (69%) were significantly more likely to be aware of BEST than were those from the remaining areas of the city (53%).
- ❖ Those most likely to report awareness with the BEST program were typically more educated individuals (77% among those with a University Degree versus 58% among those with high school or less) and those respondents aged 35 to 54 years (72% versus 68% among respondents aged 18 to 34 years and 57% among those aged 55 years and older).

### 2.3.2 B.E.S.T. Programs Awareness

In the first and fifth wave of data collection, respondents were asked if they had seen selected information distributed by the Brandon Emergency Support Team. In the first wave, a sampling of residents from within the test area were included, while in the fifth wave of data collection, only those residents residing outside the test area were asked this question.



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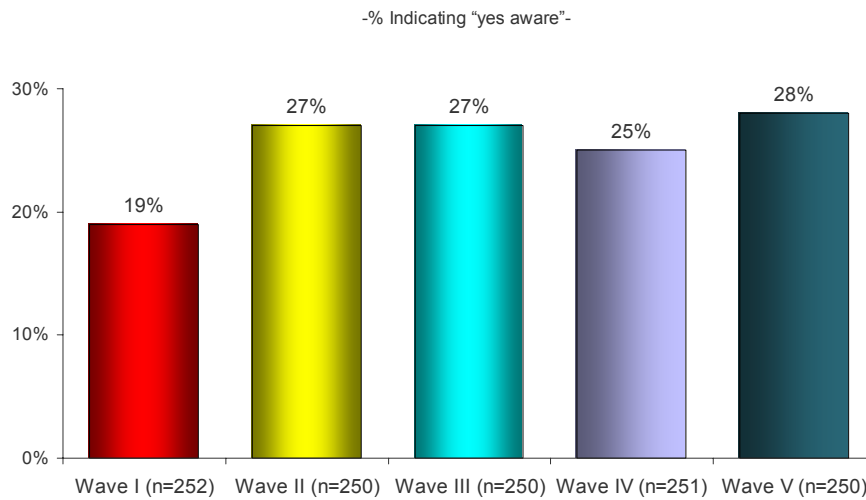
- ❖ BEST programs with the highest levels of awareness were “Emergency quick reference guide”, “Emergency preparedness handbook”, and “Public service TV announcements”.
- ❖ The programs with moderate response levels were the “Emergency preparedness calendar”, “Public meetings”, and the “Red Cross workbook”, each mentioned by approximately two-in-ten respondents.
- ❖ The “Shelter in place video” was the least popular BEST program and was mentioned by less than one-in-ten respondents.

- ❖ Residents residing outside the test area were much less familiar with the “Emergency quick reference guide” than Brandon residents in general. While close to two-thirds (63%) of respondents recalled seeing this information in the first wave of data collection, only four-in-ten respondents (38%) from outside the test area had seen this literature.

### 2.3.3 “Shelter in Place” Awareness



S13.Q3. “Are you familiar with the concept of “Shelter in Place?”



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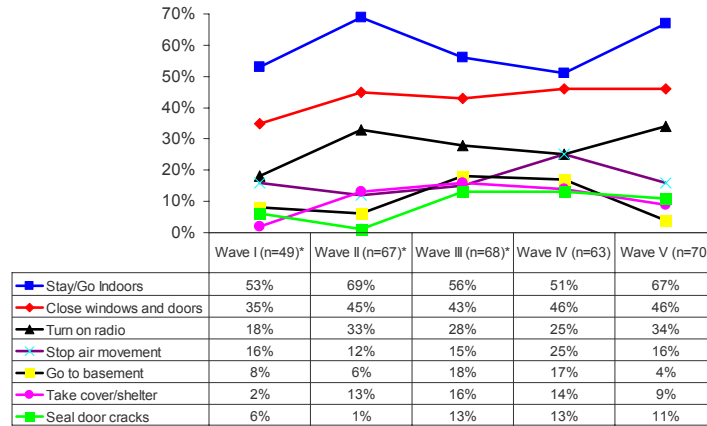
- ❖ Awareness testing for the “Shelter in Place” concept revealed fairly consistent results across all five waves of data collection with a solid one-in-four (25%) respondents indicating familiarity with this initiative.
- ❖ In the fifth wave of testing there was once again a noticeable difference of responses among those residing in the BEST areas (38%) and those living in other parts of Brandon (18%).
- ❖ Reported levels of awareness were slightly more evident among respondents aged 35 to 54 years (29% versus 26% among those aged 18 to 34 years and 21% among those aged 55 years and over) and among those with higher levels of education (30% among University graduates versus 29% among those with some post-secondary education and 21% among those with high school or less).

### 2.3.4 “Shelter in Place” Comprehension

Beap Wave 6

# “Shelter in Place” Comprehension

S13.Q4. “When warned of an emergency, what does “Shelter in Place” suggest that you do?”



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\*Caution small bases

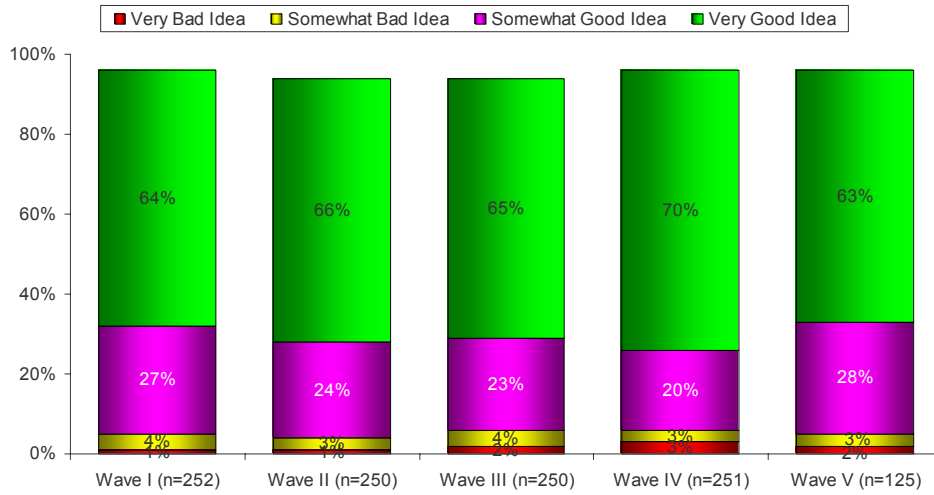
- ❖ The two most popular program suggestions acknowledged by respondents were “Stay/go indoors” (60%) and “Close windows and doors” (43%). Males aged 35 to 54 years were most likely to suggest this first option (70%) while the second option was most popular among women in this same age group (59%).
- ❖ One-in-three (28%) respondents indicated that they would “Turn on radio” and two-in-ten (17%) said they would “Stop air movement”.
- ❖ Program elements mentioned by one-in-ten respondents overall included “Go to basement” (11%), “Take cover/shelter” (9%) and “Seal door cracks” (9%).

### 2.3.5 Support for New Emergency Programs

## Support for New Emergency Programs

Beap Wave 6

**S2.Q6.** "Do you think it is a good idea or a bad idea to develop a public emergency alerting system in Brandon beyond what has been in place for the past several years? Is that very or somewhat?"



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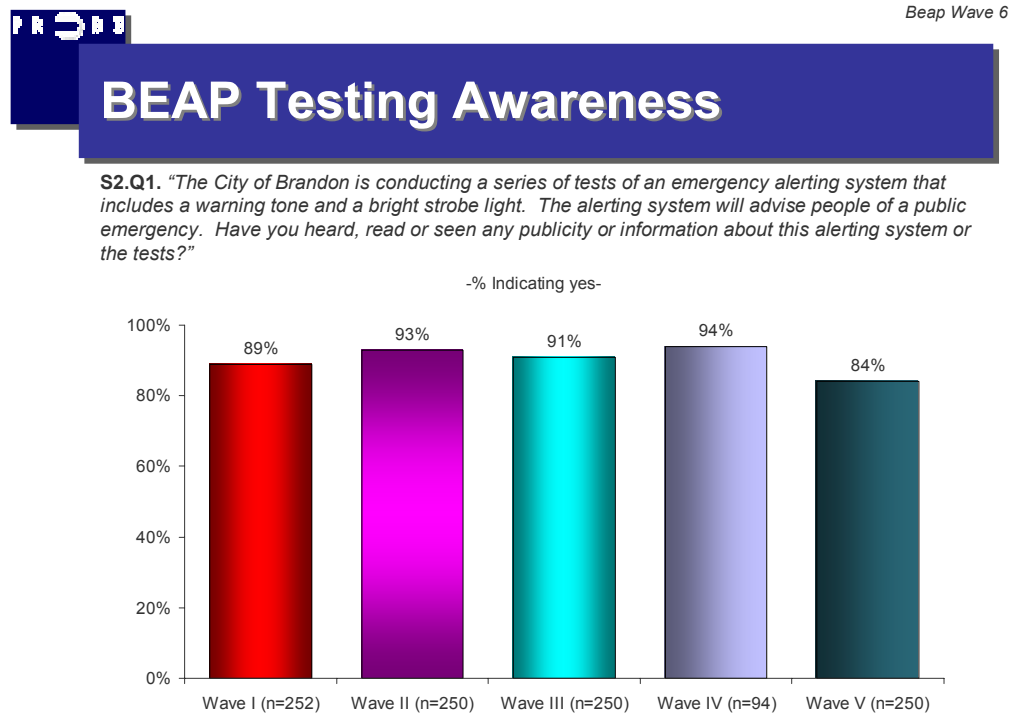
- ❖ Respondents were almost unanimous in their support for the development of a new emergency alerting system with close to two-thirds of these respondents expressing strong levels of endorsement. This pattern was consistent throughout the five waves of data collection.
- ❖ Those sub-populations demonstrating above-average levels of support for the enhancement of emergency alerting initiatives included women (71%), and those aged 35 to 54 years (72%).

## 2.4 BEAP Testing Communications Issues

This section of the report examines the level of public awareness about the BEAP program and looks at the timing and sources of this information.

### 2.4.1 BEAP Testing Awareness

Respondents were presented with a brief explanation of the BEAP initiative and were asked whether they had heard, read or seen any publicity or information about this alerting system or the tests.



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- ❖ In all consecutive waves of data collection, the level of awareness of the BEAP alerting system was exceptionally high with nine-in-ten respondents (90%) expressing familiarity with the tests.
- ❖ Once again residents of the test area (94%) distinguished themselves from residents of other areas of Brandon (75%) with the higher levels of awareness (75%).
- ❖ Familiarity with the emergency alerting system was particularly high among those persons aged 35 to 54 years (95%).

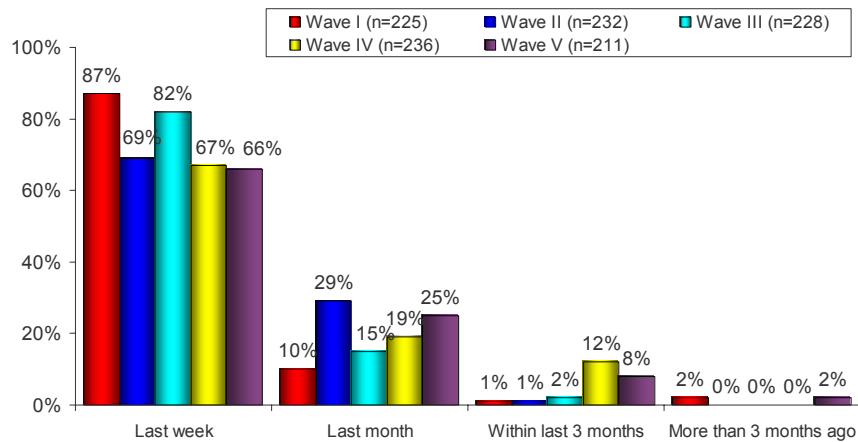


### 2.4.2 BEAP Awareness Timing

To gain a greater understanding of the timing of the information gathering, respondents were asked about the timing of their most recent communications regarding the BEAP program.



S2.Q2. “How long was it that you encountered the most recent publicity or information was it...?”



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- ❖ Close to three-quarters of respondents (74%) who had encountered recent publicity regarding the BEAP program had received this information within the past week.
- ❖ Most recent encounters with BEAP related information moved slightly to a longer window of time as the series of tests progressed.
- ❖ “Last month” or longer was mentioned by just one-fifth of respondents or less in each wave of data collection.

### 2.4.3 Source of BEAP Information

Respondents were asked to identify the source of their most recent BEAP communications message and were asked to include any other media or communication vehicles that they had encountered disseminating BEAP information.

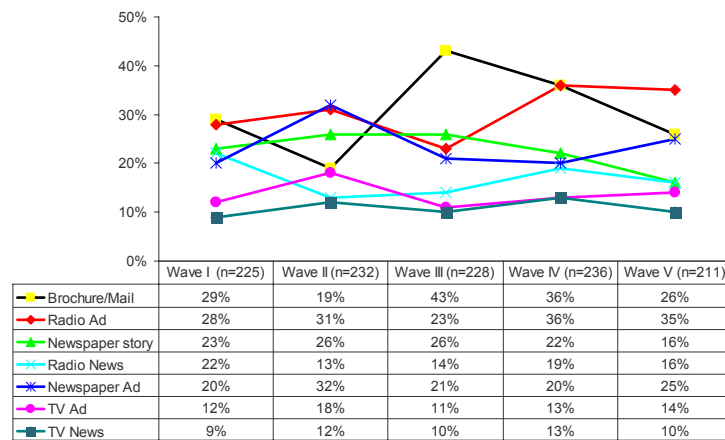


## Beap Wave 6

# Source of BEAP Information

### -Total Mentions-

**S2.Q3.** “Where did you get this most recent information? And did you hear about this through any other source?”



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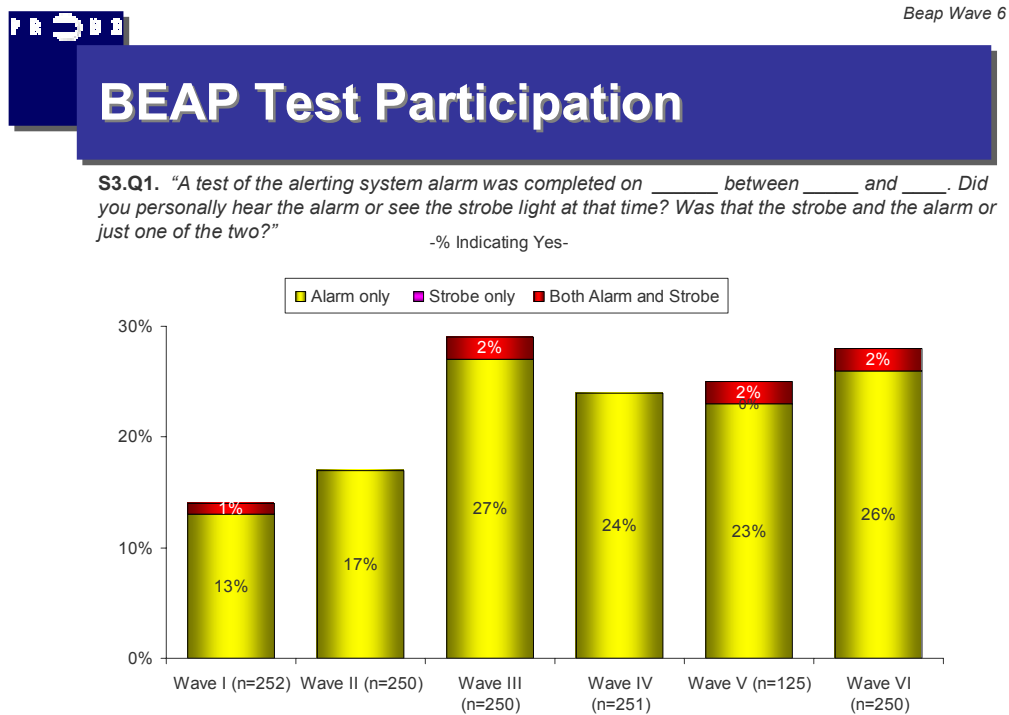
- ❖ The two most frequently-mentioned communication vehicles were “Brochure in the mail” and “Radio ad”, each cited by close to three-in-ten respondents. Younger men (45%) and younger women (42%) were most inclined to rely on the radio for their information, while middle-aged (42%) and other respondents (36%) were most inclined to refer to brochures and the mail.
- ❖ Those communication vehicles with moderate levels of response rates were “Newspaper ad” (24%), “Newspaper story” (23%) and “Radio news” (17%).
- ❖ Those information sources mentioned least often included “T.V. ad” (14%) and “T.V. news” (11%).

## 2.5 BEAP Testing Factors

Several aspects of the BEAP alerting system are examined in this section of the report. The study looks at the number of respondents who heard or saw the alarm or strobe light, examines where they were at the time of the test and inquires as to the perceived clarity of the alarm sound. In the sixth wave of data collection, three different alarm sounds were tested sequentially and the relative effectiveness of these alternatives is examined.

### 2.5.1 BEAP Test Participation

Respondents were advised about the timing of the alarm testing and were asked if they had heard the alarm or seen the strobe light.



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- ❖ The number of residents who reported hearing the alarm climbed somewhat following the initial alarm test. Overall, roughly one-in-four residents surveyed reported hearing the alarm.
- ❖ Only a small minority of respondents had seen the strobe light.

## 2.5.2 Location at Time of Alarm – Heard Alarm

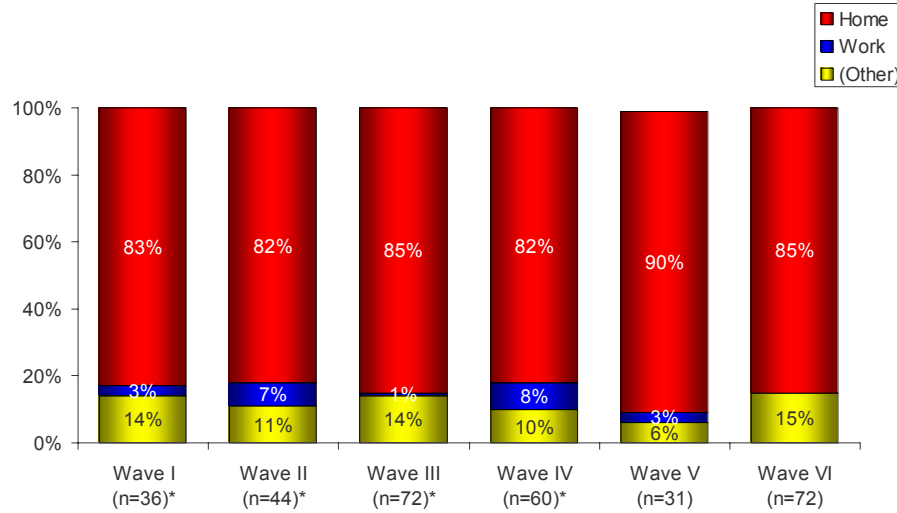
Beap Wave 6

PRBE

# Location at Time of Alarm

**-Among Those Who Heard Alarm-**

S3.Q2. "When you heard the alarm test, were you at home, at work or at some other location?"



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\*Caution small bases

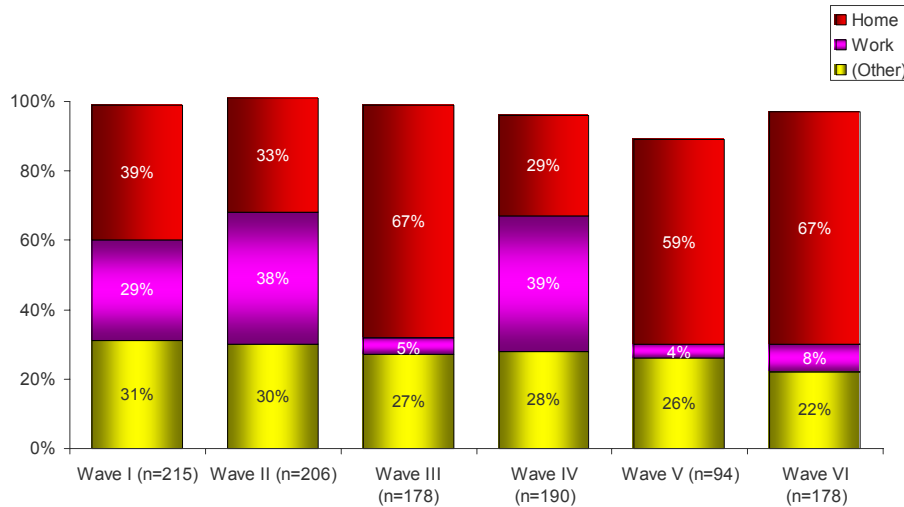
- ❖ The percentage of respondents who reported that they were “At home” at the time of the test far out-weighted those who were “At work” or “Other” in all waves of data collection (84% versus 16%).
- ❖ Women were more likely than men to report being at home at the time of the study (90% versus 77% across all waves).

**2.5.3 Location at Time of Alarm – Not Hearing or Seeing Alarm**

**Location of Those Not Hearing or Seeing Alarm**

Beap Wave 6

S8.Q1. "At this time, were you at home or some other location?"



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- ❖ In all waves of data collection, the number of respondents who indicated that they had not heard the alarm were more likely to have been at work or somewhere else than at home at the time of the tests than was the case among those respondents who had heard the alarm. Overall, slightly less than one-half (47%) indicated that they were at home at the time of the test and did not hear the alarm. One-quarter of this group (23%) indicated that they were at work while the balance (27%) noted that they were at some other location at the time of the alarm testing.
- ❖ Persons aged 55 and over were more likely than their younger counterparts to report that they were at home at the time of the alarm tests (61% versus 36% among those aged 35 to 54 years and 41% among those aged 18 to 34 years).

Beap Wave 6



# Alarm Test Participation Rate

QUALIFIED RESPONDENTS HEARING TEST IN CORRECT AREA						
	Wave 1 (n=252)		Wave 2 (n=250)		Wave 3 (n=250)	
	# Of Respondents					
	Right area HEARD	Right area NOT HEARD	Right area HEARD	Right area NOT HEARD	Right area HEARD	Right area NOT HEARD
NUMBER AT HOME	30	83	36	67	61	119
NUMBER AT WORK	1	16	3	19	1	4
NUMBER AT OTHER LOCATION	3	8	5	0	9	2
TOTAL	34	107	44	86	71	125
% Qualified respondents hearing test	24%		34%		36%	

(cont'd)

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Beap Wave 6



# Alarm Test Participation Rate (Cont'd)

QUALIFIED RESPONDENTS HEARING TEST IN CORRECT AREA						
	Wave 4 (n=251)		Wave 5 (n=125)		Wave 6 (n=250)	
	# Of Respondents					
	Right area HEARD	Right area NOT HEARD	Right area HEARD	Right area NOT HEARD	Right area HEARD	Right area NOT HEARD
NUMBER AT HOME	49	56	28	55	61	119
NUMBER AT WORK	5	15	1	1	-	-
NUMBER AT OTHER LOCATION	3	12	2	1	7	3
TOTAL	57	83	31	57	68	122
% Qualified respondents hearing test	41%		35%		36%	

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The two tables above describe the number of individuals who were in the correct area at the time of the test and heard the alarm, as well as the number who did not hear the tests.

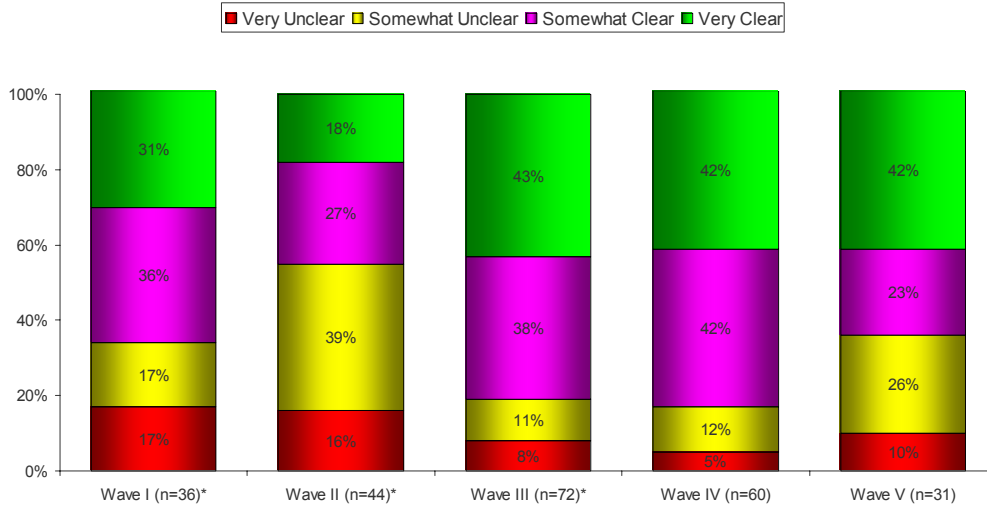
- ❖ The number of qualified respondents hearing the test alarms increased after the first wave and then leveled off somewhat.
- ❖ Respondents either at their home or some other location in the right area at the time of the alarm were most likely to hear the test. Respondents who were at a workplace located in the test area were less likely to hear the test alarm.

### 2.5.4 Clarity of Alarm Sound


Beap Wave 6

# Clarity of Alarm Sound

S7.Q3. "From your location at the time, would you have described the alarm as...?"



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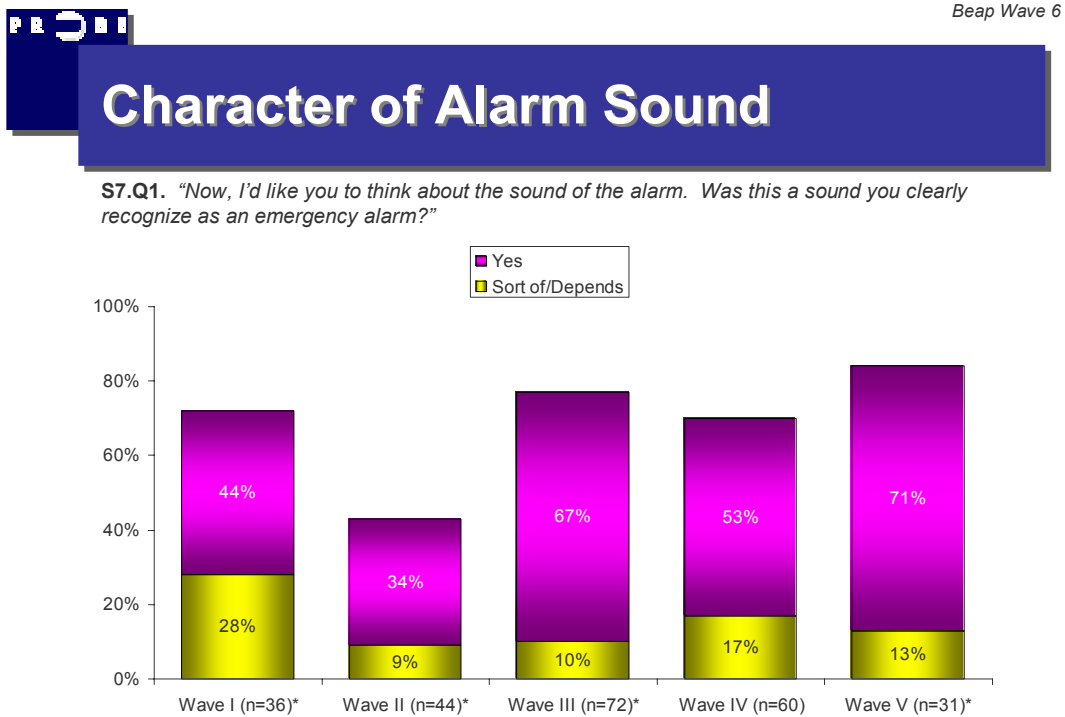
\*Caution small bases

- ❖ The clarity of the alarm was viewed differently during different waves of data collection. The test alarm used in wave four received the highest accolades and was rated as “very” or “somewhat” clear by 84 percent of those surveyed, followed closely by the wave three alarms (81%).
- ❖ The clarity of the alarm used in wave two of the study received the lowest ratings overall, with less than one-half of respondents rating the alarm as “very” or “somewhat” clear (45%).



### 2.5.5 Character of Alarm Sound

Respondents were asked to indicate whether or not they felt the character of the alarm sound was identifiable as an emergency alarm.



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\*Caution small bases

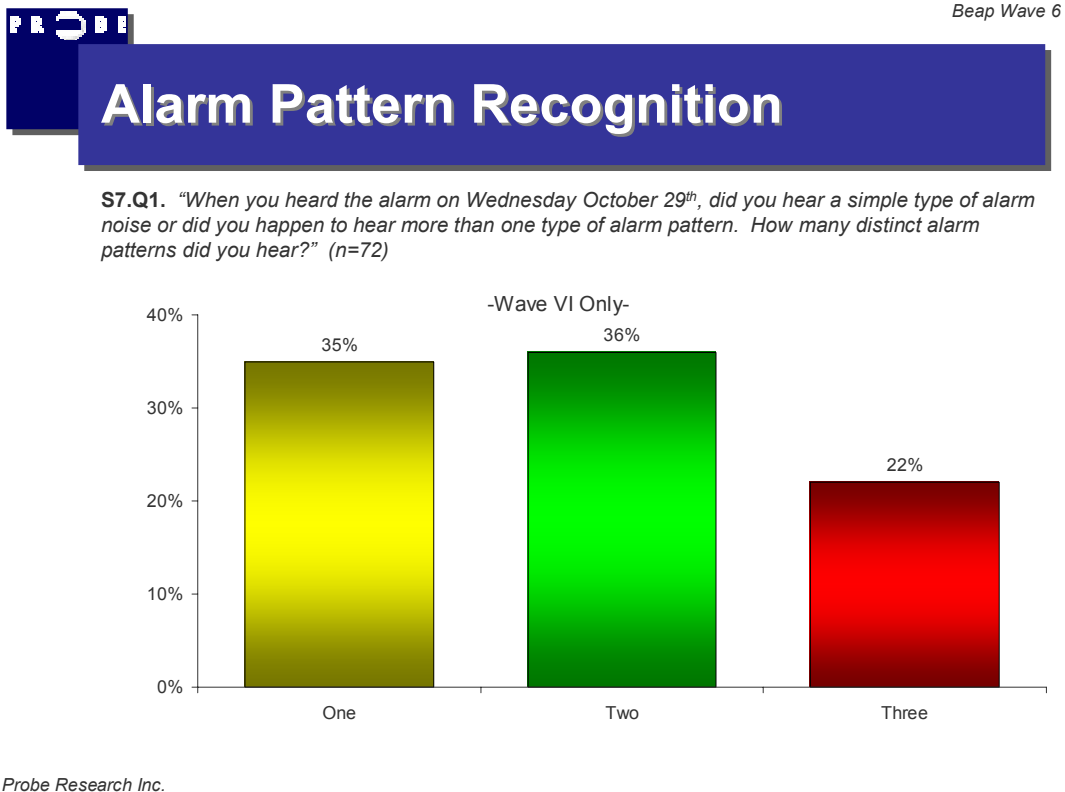
- ❖ The alarm used in the fifth wave of testing was most likely to be described as a recognizable emergency alarm.

## 2.6 Comparative Alarm Recognition

This section of the report is based on the data collected in wave six exclusively. The purpose of this section is to examine and compare the clarity and relative effectiveness of each of the three different alarm sounds.

### 2.6.1 Alarm Pattern Recognition

Respondents were asked if they heard one or more distinctive alarm patterns on the date of the alarm tests.



- ❖ An almost equal number of respondents heard "One" or "Two" alarm sounds (35% and 36% respectively) while less than one-quarter of those surveyed (22%) heard "Three" distinct alarm sounds on this occasion.

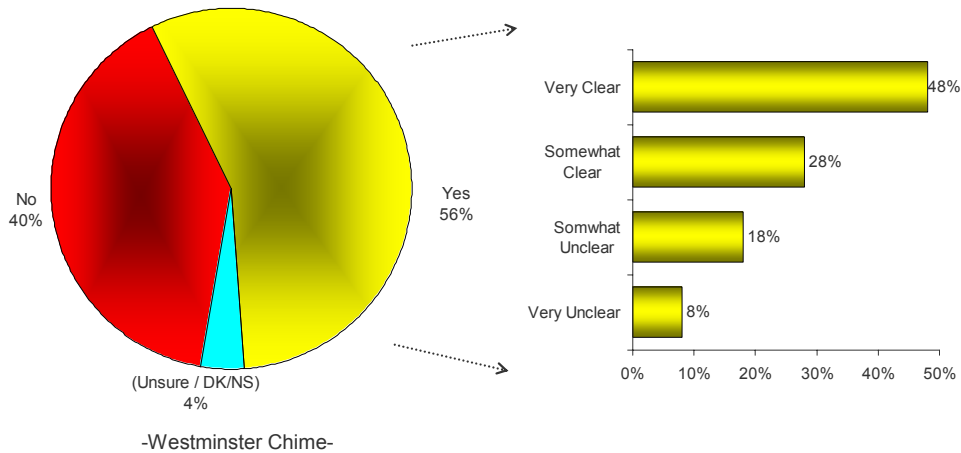
## 2.6.2 Alarm Sound Recognition – Westminster Chime

Beap Wave 6

# Alarm Sound Recognition -Westminster Chime-

**S7.Q2.** "Now I am going to play you one of the alarm sounds. Did you hear this alarm pattern?" (n=72)\*

**S7.Q3** "At the time of the test, would you describe the alarm as..." (n=40)\*

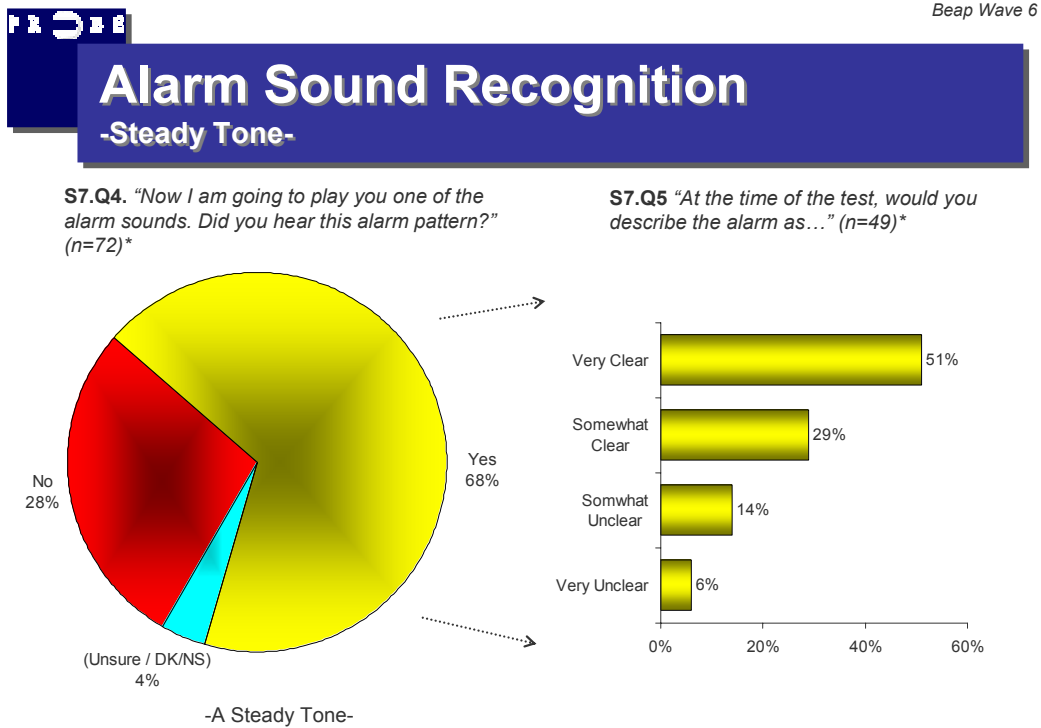


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\*Caution small bases

- ❖ Close to six-in-ten respondents (56%) had indicated that they had heard the first alarm sound of the Westminster Chime.
- ❖ The likelihood of having heard Alarm 1 increased with age. While approximately one-half of those respondents under 55 years had heard the alarm, this increased to almost two-thirds (63%) among respondents aged 55 years and over.
- ❖ Women (62%) were also more likely than men (48%) to report hearing this alarm tone.
- ❖ Over three-quarters (76%) if those who had heard the first alarm test felt that the sound was clear ("very" 48% and "somewhat" 28%).

### 2.6.3 Recognition Sound – Alternating Steady Tone

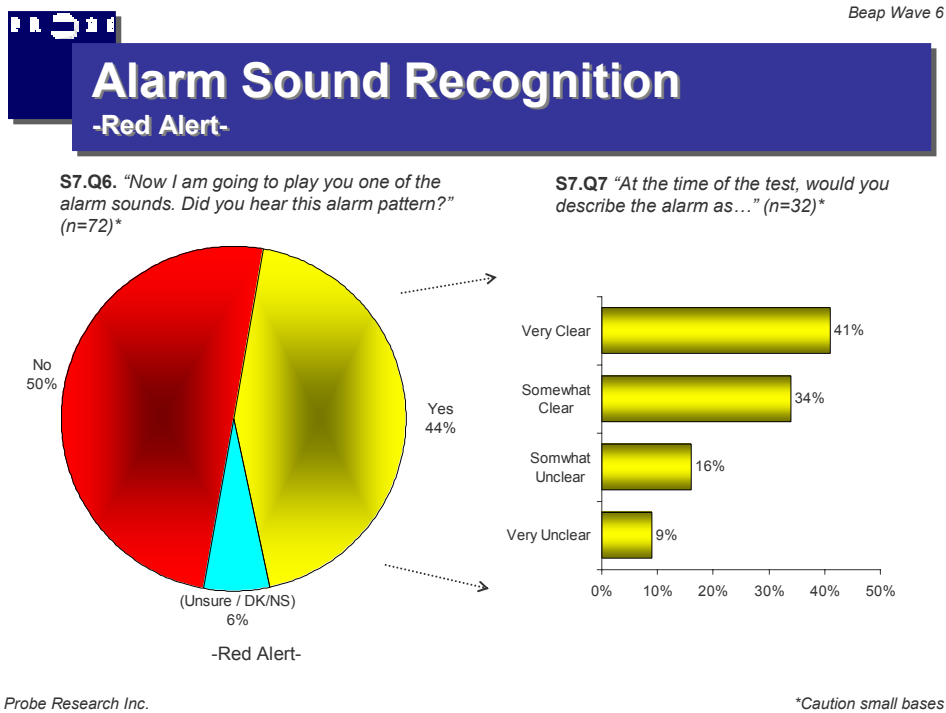


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\*Caution small bases

- ❖ Sixty-eight percent of those surveyed had indicated that they had heard an Alternating Steady Tone sound.
- ❖ Although few residents aged 18-34 years (n=11) participated in the research, this group was much more likely to report hearing this alarm (91%).
- ❖ Of those respondents who had heard the second alarm, eight-in-ten respondents indicated that the sound was clear ("very" 51% and "somewhat" 29%).
- ❖ Once again, women (72%) were somewhat more likely than men (64%) to have heard the alarm.

## 2.6.4 Recognition Sound – Red Alert



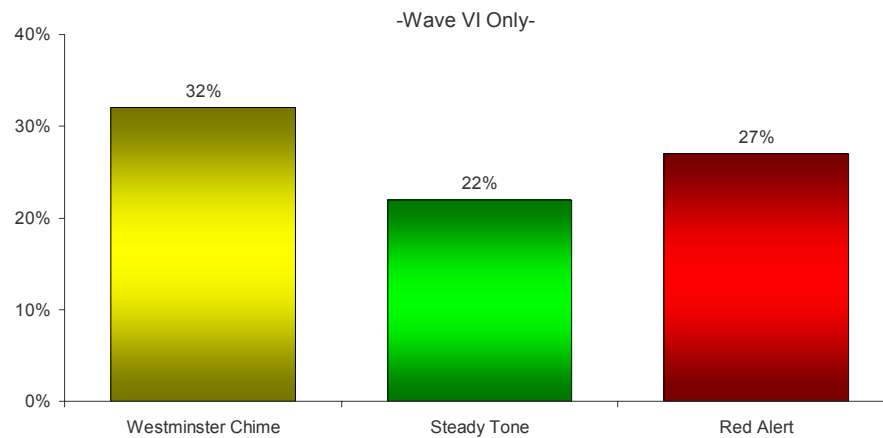
- ❖ Fewer than one-half (44%) of those surveyed reported hearing the Red Alert alarm sound.
- ❖ Three-quarters (75%) of those who had heard the third alarm test felt that the sound was clear (“very” 41% and “somewhat” 34%).
- ❖ One-quarter of respondents who had heard the third alarm indicated that the sound was either “somewhat” (16%) or “very” (9%) unclear.

## 2.6.5 Effectiveness of Alarm Sounds

### Relative Effectiveness of Alarm Sounds

Beap Wave 6

S7.Q8. "At the time of the test, which alarm pattern would you have described as the most effective in getting your attention?" (n=41)\*



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\*Caution small bases

- ❖ Westminster Chime was viewed as the most effective alarm pattern by close to one-third (32%) of survey respondents.
- ❖ Slightly more than one-quarter (27%) of those surveyed felt that Red Alert was the most effective alarm pattern.
- ❖ The Steady Tone was the least popular alarm sound with just over two-in-ten respondents (22%) indicating a preference for this alarm pattern.

## 2.7 Citizen Controlled Test Factors

This section of the report examines the impact of various factors contributing to the incidence of those hearing or not hearing the alarm.

### 2.7.1 Incidence of Indoors – Heard Alarm



INCIDENCE of INDOORS -HEARD ALARM-						
Were you inside a building or outdoors when you heard the alarm?						
Location	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
S4.Q1. Home Indoors	(n=30) 93%	(n=36) 59%	(n=61) 46%	(n=49) 71%	(n=28) 65%	N/A
S5.Q2. Work Indoors	(n=1) 100%	(n=3) 66%	(n=1) 100%	(n=5) 60%	(n=1) 100%	N/A
S6.Q2. Other Indoors	(n=5) 20%	(n=5) 0%	(n=10) 0%	(n=6) 17%	(n=2) 0%	N/A

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\*Caution small bases

- ❖ Among those who were at home at the time of the alarm tests, an average of six-in-ten respondents (61%) indicated that they were inside their home or apartment at this time. The balance of respondents who were at home at the time of the testing was either outdoors (36%) or inside their garage or shed (3%).
- ❖ Among those respondents who were at work at the time of the alarm tests, overall roughly two-thirds indicated that they were indoors (64%) while one-third was working outside (36%).

**2.7.2 Incidence of Indoors – Not Hearing or Seeing Alarm**



Beap Wave 6

**Incidence of Indoors  
-Among Those Who Did Not Hear Alarm-**

INCIDENCE of INDOORS -DID NOT HEAR ALARM-						
Were you inside a building or outdoors at this time?						
Location	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
S9.Q1. Home Indoors	(n=83) 96%	(n=67) 91%	(n=119) 90%	(n=56) 90%	(n=55) 100%	N/A
S10.Q3. Work Indoors	(n=24) 92%	(n=28) 93%	(n=4) 25%	(n=26) 92%	(n=2) 100%	N/A
S11.Q3. Other Indoors	(n=14) 79%	(n=10) 80%	(n=4) 75%	(n=16) 69%	(n=3) 66%	N/A

Probe Research Inc.

\*Caution small bases

- ❖ Among those who were at home at the time of the alarm tests, an average of nine-in-ten respondents (92%) indicated that they were inside their home or apartment at this time. The balance of respondents who were at home at the time of the testing was either outdoors (6%) or inside their garage or shed (2%).
- ❖ Among those respondents who were at work at the time of the alarm tests, overall roughly nine-in-ten respondents indicated that they were indoors (88%) while less than one-in-ten respondents reported that they were working outside (36%).
- ❖ Three-quarters (77%) of respondents who indicated that they were neither at home or at work but were in the test area said that they were indoors at the test time.



**2.7.3 Incidence of Open Windows– Heard Alarm**



Beap Wave 6

**Incidence of Open Windows  
-Among Those Who Heard Alarm-**

INCIDENCE of OPEN WINDOWS -HEARD ALARM-						
Do you recall if the windows were open when you heard the alarm?						
Location	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
S4.Q2. Home Open	(n=27) 67%	(n=20) 55%	(n=27) 59%	(n=33) 39%	(n=17) 47%	N/A
S5.Q3. Work Open	(n=0) N/A	(n=1) 100%	(n=0) N/A	(n=3) 0%	(n=1) 0%	N/A
S6.Q3. Other Open	(n=1) 0%	(n=0) N/A	(n=0) N/A	(n=0) N/A	(n=0) N/A	N/A

Probe Research Inc.

\*Caution small bases

- ❖ Among respondents who were at home at the time of the alarm tests, the incidence of open windows was slightly higher than closed windows (53% versus 45% respectively) overall.

**2.7.4 Incidence of Open Windows – Not Hearing or Seeing Alarm**



Beap Wave 6

**Incidence of Open Windows  
-Among Those Who Did Not Hear Alarm-**

INCIDENCE of OPEN WINDOWS -DID NOT HEAR ALARM-						
At that time, do you recall if windows or doors were open?						
Location	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
S9.Q2. Home Open	(n=78) 44%	(n=62) 32%	(n=108) 16%	(n=50) 14%	(n=54) 11%	N/A
S10.Q4. Work Open	(n=21) 10%	(n=25) 24%	(n=2) 0%	(n=24) 13%	(n=2) 0%	N/A
S11.Q4. Other Open	(n=12) 8%	(n=7) 0%	(n=3) 0%	(n=12) 0%	(n=2) 0%	N/A

Probe Research Inc.

\*Caution small bases

- ❖ Roughly one-quarter of respondents (24%) who were indoors at home at the time of the alarm tests and did not hear the alarm noted that their windows and doors were open at this time.
- ❖ The results were similar among those respondents who were indoors at work at the time of the alarm tests. Just slightly fewer than one-in-six respondents (15%) indicated that their windows and doors were open at the time of the alarm tests.

**2.7.5 Incidence of Noise Levels – Heard Alarm**

Beap Wave 6



**Incidence of Noise Levels  
-Among Those Who Heard Alarm-**

OVERALL INCIDENCE of NOISE LEVELS -HEARD ALARM-						
How would you describe the noise level where you were at the time of the alarm?						
Location	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
<b>Home</b>	(n=30)	(n=36)	(n=61)	(n=49)	(n=28)	N/A
S4.Q3. Quiet	57%	81%	66%	76%	68%	N/A
Somewhat noisy	37%	14%	28%	22%	32%	N/A
Very noisy	7%	6%	7%	2%	0%	N/A
<b>Work</b>	(n=1)	(n=3)	(n=1)	(n=5)	(n=1)	N/A
S5.Q4. Quiet	-	-	100%	40%	100%	N/A
Somewhat noisy	100%	67%	-	60%	-	N/A
Very noisy	-	33%	-	-	-	N/A
<b>Other</b>	(n=5)	(n=5)	(n=10)	(n=6)	(n=2)	N/A
S6.Q4. Quiet	40%	40%	80%	33%	0%	N/A
Somewhat noisy	20%	40%	20%	50%	50%	N/A
Very noisy	20%	20%	-	17%	50%	N/A

Probe Research Inc.

\*Caution small bases

- ❖ Among those respondents who were at home and had heard the alarm sounds, seven-in-ten respondents overall (70%) indicated that it was “quiet” in their homes at the time of the alarm tests.
- ❖ Roughly one-quarter of those surveyed (26%) described the noise levels as “somewhat noisy” while four percent said it was “very noisy” at that time.
- ❖ Conversely, the majority of respondents who were at work and heard the alarm tests were more likely to describe the noise levels at “somewhat noisy” (55%).
- ❖ Less than four-in-ten respondents (36%) who were at work and heard the alarm sound said that it was “quiet”, while one-in-ten respondents (9%) described their work environment as “very noisy”.

## 2.7.6 Incidence of Noise Levels – Not Hearing or Seeing Alarm

Beap Wave 6

# Incidence of Noise Levels

## -Among Those Who Did Not Hear Alarm-

OVERALL INCIDENCE of NOISE LEVELS -DID NOT HEAR ALARM-							
S9.Q3. How would you describe the noise level where you were at the time of the alarm?							
	Location	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
	<b>Home</b>	(n=83)**	(n=67)**	(n=119)	(n=56)	(n=55)	N/A
S8.Q3.	Quiet	33%	45%	50%	55%	36%	N/A
	Somewhat noisy	63%	55%	45%	25%	51%	N/A
	Very noisy	-	-	3%	11%	11%	N/A
	<b>Work</b>	(n=24)	(n=28)	(n=4)	(n=26)	(n=2)	N/A
S10.Q5.	Quiet	25%	43%	-	50%	-	N/A
	Somewhat noisy	29%	29%	50%	27%	100%	N/A
	Very noisy	33%	29%	50%	19%	-	N/A
	<b>Other</b>	(n=14)	(n=10)	(n=4)	(n=16)	(n=3)	N/A
S11.Q5.	Quiet	43%	40%	-	31%	67%	N/A
	Somewhat noisy	36%	40%	100%	44%	33%	N/A
	Very noisy	14%	10%	-	6%	-	N/A

\*\*Question wording changed in Wave 3

Probe Research Inc.

\*Caution small bases

- ❖ Almost one-half (48%) of those respondents who had not heard the alarm but were at home said it was “quiet” at the time of the tests, while just slightly fewer (41%) recalled that it was “somewhat noisy” at that time.
- ❖ Overall, the noise levels reported by those respondents who were at work and had not heard the alarm sound were fairly diverse with just over one-third of respondents (37%) describing their work environment as “quiet”, and approximately one-in-three respondents saying it was either “somewhat noisy” (31%) or “very noisy” (27%) at the time of the alarm tests.
- ❖ Conversely, the majority of respondents who were at work and heard the alarm tests were more likely to describe the noise levels at “somewhat noisy” (55%).
- ❖ Among the relatively small number of respondents who were at locations other than at work or at home, approximately four-in-ten (43%) persons surveyed described the noise levels at the time of the testing as “quiet” while slightly fewer (36%) said it was “somewhat noisy” at that time. Only one-in-ten respondents (14%) described the noise level as “very noisy”.

## 2.8 BEAP Testing Effect on Public

This section of the report looks at public responses to the BEAP alarm tests and examines their behaviours and anticipated behaviours in the event of a public emergency.

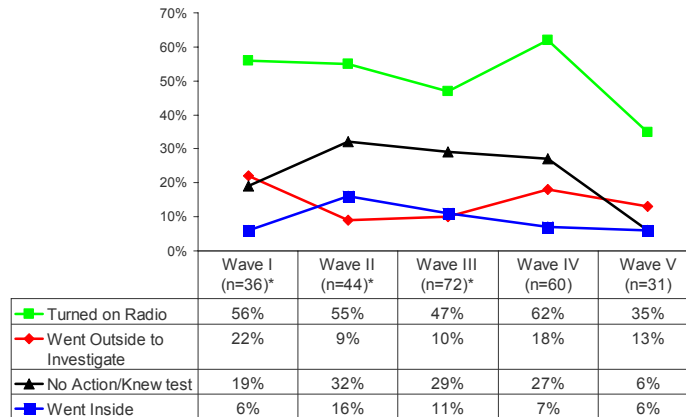
### 2.8.1 Reaction to Alarm


Beap Wave 6

## Reaction to Alarm

-Among Those Who Heard Alarm-

S7.Q4. "When you heard the alarm, what action did you take? Did you do anything else?"



Probe Research Inc.

-Total Mentions-

\*Caution small bases

- ❖ Overall, residents who heard the alarm were most likely to react by turning on the radio (53%). The second most popular response was “No action taken/Knew it was a test” which was offered by one-quarter (25%) of respondents. Fourteen percent of respondents said they “Went outside to take a look” while a small number of respondents offered a variety of responses including “Turned on the T.V.” (10%) or “Closed windows and doors” (5%) to mention a few.

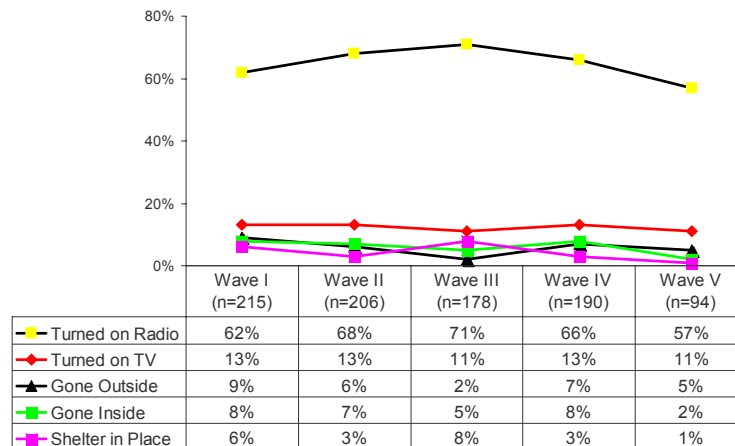
## 2.8.2 Anticipated Reaction to Alarm



Beap Wave 6

# Anticipated Reaction to Alarm -Among Those Who Did Not Hear Alarm-

S12.Q1. "If you had heard the alarm, what steps do you think you would have taken? And is there anything else you think you would do under these circumstances?"



-Total Mentions-

Probe Research Inc.

- ❖ Fully two-thirds of residents (66%) who had not heard the alarm tests said they would “Turn on the radio” in the event of a public emergency.
- ❖ One-in-ten respondents (12%) said they would “Turn on the T.V.” if they heard the alarm.
- ❖ A small number of respondents offered a variety of responses such as “Go inside the house/apartment” (7%), or “Go outside and take a look” (6%).