

Robert L. Ehrlich, Jr., *Governor*
Michael S. Steele, *Lt. Governor*



Robert L. Flanagan, *Secretary*
Neil J. Pedersen, *Administrator*

STATE HIGHWAY ADMINISTRATION

RESEARCH REPORT

EVALUATION OF PEDESTRIAN SAFETY CAMPAIGN

RANDAL REED AND SIDDHARTHA SEN

MORGAN STATE UNIVERSITY

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FINAL REPORT

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16. Abstract The objective of the study was to determine the efficacy and success of SHA's public service campaign regarding pedestrian safety. Data collection issues forced a change in this focus as the project progressed. The study contains two issues that are addressed for an important segment of society – elderly citizens. The results allow an examination of senior citizen attitudes concerning pedestrian safety. A survey was conducted to determine the attitudes and beliefs of senior citizens concerning pedestrian safety. The surveys were conducted at local senior centers. In addition, focus groups were conducted at six senior centers to allow the seniors to discuss these issues. Standard statistical methods were employed to analyze the survey, while the analytical framework for the focus groups was drawn from critical ethnography and studies of practice and discourse in public policy. These methodologies are discussed in detail in the report.			
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I. Introduction

The focus of the study was to determine the efficacy and success of the public service campaign regarding pedestrian safety. Data collection issues forced a change in this focus as the project progressed. The study contains two key issues that are addressed for an important segment of society – elderly citizens. The results allow an examination of both senior citizen attitudes concerning pedestrian safety and their evaluation of the success of the “Walk Smart” public service campaign. However, due to the lack of publicity concerning the Walk Smart campaign in the months leading up to this study, the results concerning message recall might not be representative of the success of this campaign.

A survey was conducted to determine the attitudes and beliefs of senior citizens concerning pedestrian safety and the public service campaign. The surveys were carried out at local senior centers. There were 809 responses to the survey. Due to the time that had lapsed between the campaign and the surveys, the message recall information must be viewed as long-term recall. In addition, focus groups were held to allow the seniors to discuss these issues. The focus groups were conducted at six senior centers. Standard statistical methods were employed to analyze the survey, while the analytical framework for the focus groups was drawn from critical ethnography and studies of practice and discourse in public policy. These methodologies are discussed in detail in later sections of this report.

Before we discuss the results of our study, it is important to note that the attitudes and needs of senior citizens on pedestrian safety are important aspects of current public policy on transportation. However, for most of the past century, national transportation policy focused on accommodating the demand for travel and the needs of automobiles through the construction of roads and other transportation facilities (Horan and Jordan, 1998). Soon after World War II, the United States embarked on construction of a 44,000-mile nationwide system of highways with the passage of the Federal Highway Act of 1956 and the implementation of the Interstate and Defense Highways program (Kay, 1997). Until the early 1990s, transportation planning and policy mainly remained an engineering exercise, with little consideration for human concerns.

Interest in such issues as the travel needs of the elderly has recently taken hold among transportation planners and policymakers, as they address such issues as environmental justice, integration of bicycling and walking into transportation systems, disability, and the Personal Responsibility and Work Opportunity Act of 1996 (welfare to work)¹. Such issues are also central to accomplishing the vision of the Transportation Equity Act of the 21st Century (TEA 21) of 1998, which builds on the Intermodal Transportation Equity Act of 1991 (ISTEA).

The passage of Intermodal Transportation Equity Act (ISTEA) by the Congress in 1991 fundamentally altered U.S. transportation policy. As pointed out by Horan and Jordan (1998), ISTEA created an urban transportation planning process that linked it to several policy domains - environmental, economic, and social. The goal was to improve the overall quality of life in

¹ See Bullard and Johnson, 1997; Forkenbrock and Schweitzer, 1999; Sanchez, 1999; and Khisty, 2000. This act aims to enhance the mobility of low-income populations to job sites. In addition to job access, other related issues, such as fairness of transit service pricing and quality of service provision, have also been of recent concern.

communities. As they point out, ISTEA created a place-based planning model, in which the place itself, rather than the movement from place to place, became the central concern of public policy. ISTEA called for a planning process in which traditional transportation goals (namely moving people and goods) were balanced with non-traditional goals that addressed ways in which transportation related to other aspects of society. This legislation encouraged participation from community stakeholders, elected officials, and citizens and helped move toward a multimodal transportation system that would increase mobility and access including those of the elderly.

Concerns for the elderly, particularly their safety, is also central to accomplishing the vision of the Transportation Equity Act of the 21st Century (TEA-21) of 1998, which builds on ISTEA (Passwell, 2001). In addition, USDOT adopted strategic goals that emphasize non-discrimination in implementation of programs, policies, and activities (<http://stratplan.dot.gov/> archive). The "Human and Natural Environment Strategic Goal" outlined in USDOT's "Strategic Plan" (ibid) calls for the protection and enhancement of communities and natural environments affected by transportation. Clearly, understanding the attitudes and needs of senior citizens on pedestrian safety will enhance better implementation of national transportation policy. Hence, this study will be useful not only to the Maryland State Highway Administration, which funded the study, but also for other public officials that deal with transportation policy

The study revealed that seniors consider pedestrian safety an important issue and that they are concerned about their safety when walking on roads. They show extra care in the presence of children. The study also revealed that urban seniors were considerably more likely to claim that they act safely than those living in non-urban areas. The study demonstrated that African-Americans are more likely than Caucasians to claim that they act safely. In addition, we also found that different target groups have different preferred means of receiving information. Urban seniors, and particularly African-American seniors are more likely to think that billboards are the most appropriate means of publicizing the safety issues. Non-urban, and particularly Caucasian seniors are more likely to believe that radio and television advertisements are more appropriate.

It is interesting to note that the focus groups indicated that seniors believe that stricter rules and enforcement may be better than public safety campaigns. This is in contrast to the finding of the survey.

The rest of the report is divided into six sections. Section II contains information concerning the data and the methodology. Section III contains the results from the survey and Section IV further analyzes these results for difference across demographic lines. Section V contains the results from the focus groups and Section VI contains some concluding remarks and recommendations. The appendices contain more detailed data and survey information.

II. Data and Methodology

The surveys were carried out at local senior centers. There were 809 responses to the survey. A copy of the survey employed is attached in the appendix. The basic demographic breakdown of the respondents is given in Table 1.

Table 1 – Demographic Summary of Data	
Number of Responses	809
Median Age	75
Gender	
Female	84.80%
Male	12.86%
No Answer	2.35%
Race	
African American	17.80%
Asian	6.06%
Caucasian	67.24%
Hispanic	0.12%
Other	5.32%
No Answer	3.46%
County	
Alleghany	8.78%
Baltimore	18.91%
Baltimore City	62.18%
Cecil	3.46%
Charles	4.94%
Fredrick	1.73%

The sample responses closely resemble the senior center participants in the areas surveyed. Baltimore City is slightly over represented due to the help we received in getting responses from a large number of centers in the city. Many of the outlying counties in the state had no central agency that coordinated the senior center activities and thus we were unable to obtain responses from those areas. One important statistic that is immediately apparent is that women are very over represented in the sample. In Section IV, the impact of this can be evaluated.

The distribution of the ages is presented in Figure 1 for those interested in what age groups are represented in the sample. The ages in our sample are representative of the senior citizen population. The overall population of seniors is a bit younger than the seniors in our survey (would be represented by a downward trend to frequency as age increased).

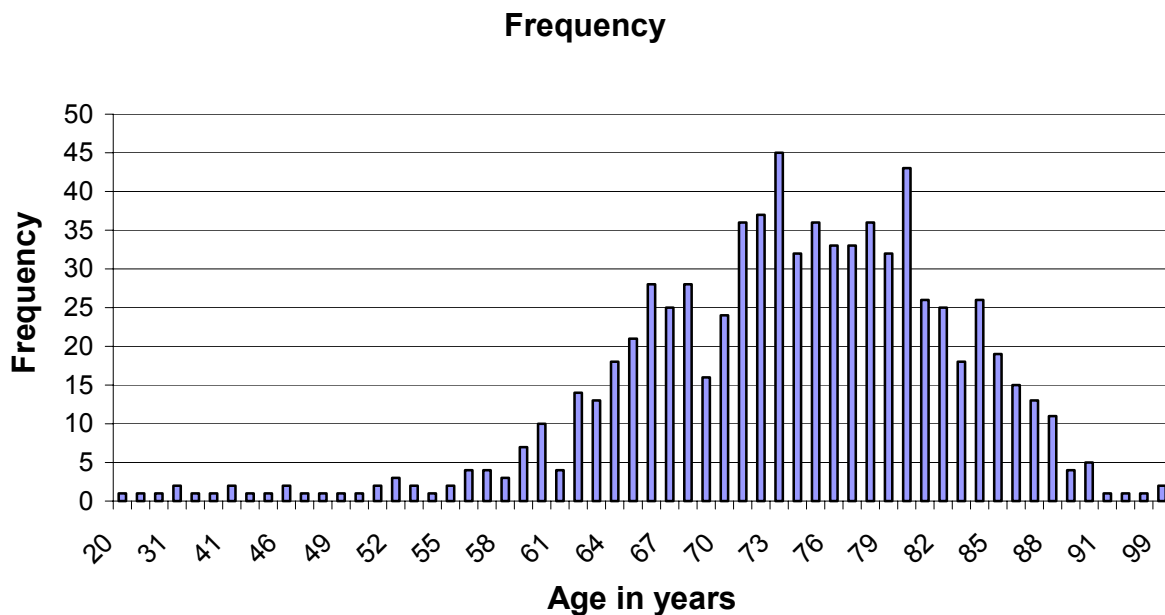


Figure 1

The respondents were not selected randomly from the population of senior citizens in the region. Instead, they were contacted through senior citizen centers in the region. While it is impossible to say, the average respondent would likely be more active and more mobile than the average senior citizen in the region. It is impossible to accurately predict how this might change the responses to the survey. At the worst, the survey should be representative of the opinions and attitudes of the seniors who are likely to participate in events like senior center activities.

The data are examined as percentages and responses analyzed overall and by demographic group. In addition, a few simple regressions are carried out to determine racial, gender, and geographic determinants of safety responses from the seniors.

III. Survey Results

The survey attached in the appendix was completed by 809 respondents. The overwhelming majority of these responses were from seniors. Each of the survey questions is looked at separately in this section. For many of the questions, the seniors responded with more than one answer. Therefore, the number of different responses received is greater than the number of suggested responses on the survey. We leave these answers as the senior marked them on the survey. Some of the answers are combined for discussion. In addition, there were many questions left unanswered in the surveys. The responses are shown as percentages both including and excluding these “missing” responses.

Table 2 contains the responses to the first two questions in the section of the survey marked “Pedestrian”. These questions deal with general walking habits.

Table – 2 Walking habits of the seniors		
P1: Where do you walk the most?		
Response	Percentage w/o missing ²	Percentage w/ missing
All	0.76%	0.74%
City	47.22%	46.23%
City, Suburbs	0.63%	0.62%
City, Rural	0.38%	0.37%
Don't know	4.17%	4.08%
None	0.13%	0.12%
Rural Areas	13.26%	12.98%
Suburbs	33.08%	32.39%
Wal-Mart	0.13%	0.12%
Within Halls	0.13%	0.12%
No Answer		2.10%
P2: On average, how frequently do you walk on roads?		
Response	Percentage w/o missing	Percentage w/ missing
A few times each week	29.14%	27.19%
At least once a week	8.61%	8.03%
Daily	21.06%	19.65%
Daily/At least once a week	0.13%	0.12%
Don't know	4.90%	4.57%
Less than once a month	24.50%	22.87%
Less than once a week	10.86%	10.14%
N/A	0.13%	0.12%
Never	0.66%	0.62%
No Answer		6.67%

There are many interesting points concerning senior behavior that are evident from these responses. While this report is not specifically looking at how senior citizens behave, understanding the behavior may be necessary to understand their responses. The first interesting point is that while almost two-thirds of the seniors were from Baltimore City, less than one-half of the seniors said that they walked in the city the most. Many of those who attended senior centers in the city stated that they walked most often in the suburbs. It is not possible to determine why this is the case since this issue was not explored in the survey.

Responses to where seniors walked most often in areas other than Baltimore City roughly matched the demographic groups percentages in the sample. In other words, most seniors walk where they live. The frequency of pedestrian utilization of roads is interesting. More than one-half of the seniors stated that they walk on roads at least a few times each week. About one-quarter of the seniors walked less than once a month. A full 10% of the respondents answered that they didn't know how often they walked or did not answer this question. It is highly likely that these seniors are not frequent walkers.

² Since some of the missing responses can be interpreted as conveying information, these responses are handled two ways. The first is to discard the missing responses and the second is to report them as a separate response. In tables where both sets of responses are reported the columns are titled "Percentage w/o missing" and "Percentage w/ missing".

The next four questions on the survey dealt with attitudes concerning crosswalks and pedestrian safety. Question 4, an open-ended question, allowed the respondent to reply in any way they desired. The responses to this question are presented in the appendix and discussed briefly here. Responses to the other three questions are presented in Table 3.

Table – 3 Importance of Crosswalks to Pedestrian Safety		
P3: Do you think it important to cross the street only at crosswalks?		
Response	Percentage w/o missing	Percentage w/ missing
Don't know	1.00%	0.99%
No	3.12%	3.09%
Yes	95.76%	94.81%
Yes, Not in Suburbs	0.124%	0.12%
No Answer		0.99%
P4: If you are not near a corner but are ready to cross the road, would you walk to a crosswalk?		
Response	Percentage w/o missing	Percentage w/ missing
Don't know	3.14%	3.09%
No	23.27%	22.87%
Yes	73.58%	72.31%
No Answer		1.73%
P5: Do you know and understand the pedestrian laws involving crosswalks?		
Response	Percentage w/o missing	Percentage w/ missing
Don't know	2.92%	2.72%
No	8.88%	8.28%
Yes	88.20%	82.20%
No Answer		6.80%

Not surprisingly, 96% of the respondents thought that crosswalks were important for pedestrian safety (see the focus group section below for more information on this). Even among this age group that is not as hurried and fast moving as much of the population, not all those who considered crosswalks important used them when crossing streets. Just under 75% of the respondents said they would walk to a corner to use a crosswalk instead of crossing in the middle of the block. The surprising result here is that fully 23% of the seniors said they would definitely not walk to the corner and use the crosswalk. Since 96% of the respondents claim that crosswalks are important for safety and 88% claim that they understand pedestrian laws, it can be assumed that a relatively large number of the senior citizens know that crossing the street in the middle of the block violates the law and is dangerous. Much was said about this during the focus groups.

Table 4 contains the responses concerning what influences the use of crosswalks by seniors.

Approximately 50% of the seniors answered this question. In this case we can see that those that did not answer most likely used the crosswalk all the time. Of those respondents about 8% of seniors always used the crosswalk. If we add those who always use the crosswalk, those who replied that crosswalks are more safe and those that do not answer, the 74% very nearly matches those that always walk to the corner to use the crosswalk. The majority of the respondents who

do not always walk to the corner claimed to make this decision based on the amount and speed of the traffic they need to traverse. Only 2% of the seniors stated that the distance to the crosswalk was a consideration. About 2% feel that crosswalks are more dangerous than crossing in the middle of the block due to signals and/or turning cars.

Table – 4 Influences on crosswalk usage		
P6: What influences your choice of whether or not to use a crosswalk?		
Response	Percentage w/o missing	Percentage w/ missing
Always Use Crosswalk	8.43%	4.45%
Safety of Crosswalk	43.33%	22.87%
Amount and Speed of Traffic	33.02%	17.43%
Lights Make Crosswalks Dangerous	3.28%	1.73%
Turning Cars Make Corners Dangerous	0.94%	0.49%
Distance to Crosswalk	3.98%	2.10%
Other Answers	7.03%	3.71%
No Answer	-	47.22%

The next three questions were used to determine the general characteristics of the seniors as drivers. This was done to determine if there were differences in responses predicated on whether or not the senior actually drove. Table 5 contains the responses to these questions.

The trend toward seniors avoiding roads in the city is continued and strengthened in these responses. While almost one-half of seniors cited the city as their most common place to walk, only one-quarter of the seniors cited the city as their most common place to drive. Again, many of those attending city senior centers claimed to drive most in the suburbs.

In the frequency of driving responses a very high percentage of seniors (almost 28%) did not answer. Almost all of the seniors that did not answer this question also did not answer the question on where they drive or whether they understand driver laws. One could conclude that these seniors do not drive. If we make this assumption, about one-half the seniors that responded drive frequently (at least a few times a week), and almost one-third don't drive at all. Of those that responded, over 50% claimed to understand the driver laws concerning pedestrian interaction with motorists. Only 5% of those that responded admitted to not knowing or understanding these laws. The 50% of respondents that claimed to understand the driver laws was much lower than the 82% that claimed to understand the pedestrian laws.

Table 5 – Driving Habits of the Seniors		
D1: If you drive a car, where do you drive the most?		
Response	Percentage w/o missing	Percentage w/ missing
All	2.88%	2.10%
City	23.90%	17.43%
City, Suburbs	2.88%	2.10%
Don't Drive	0.17%	0.12%
Don't know	28.64%	20.89%
Rural Areas	8.31%	6.06%
Suburbs	32.71%	23.86%
Suburbs/Rural	0.17%	0.12%
No Answer	-	27.32%
D2: On average, how frequently do you drive?		
Response	Percentage w/o missing	Percentage w/ missing
A few times each week	20.75%	14.96%
Daily	51.80%	37.33%
Don't Know	19.1%	13.84%
Less than once a month	1.71%	1.24%
Less than once a week	1.37%	0.99%
Never	5.14%	3.71%
No Answer	-	27.94%
D3: Do you know and understand the motor vehicle laws concerning pedestrians and bicyclists? Which laws are you familiar with?		
Response	Percentage w/o missing	Percentage w/ missing
Don't know	43.80%	27.94%
No	4.65%	2.97%
Yes	51.55%	32.88%
No Answer	-	36.22%

The next set of questions dealt with how the seniors felt about pedestrian safety and their own children or grandchildren. The results, presented in Table 6, show an interesting trend in the behavior of the seniors. Question 6 in this section allowed for an open-ended response from the seniors. The answers to this question are presented in the appendix and discussed briefly here.

Over one-half of the respondents claimed to have children or grandchildren. The differences in responses attributable to the answer to this question are extremely interesting.

Approximately one-half of the respondents say that they have spoken to their children or grandchildren concerning pedestrian safety. This number is close to 75% for those that said they have children or grandchildren and about 25% for those that said that they do not. The same percentage of seniors felt that their own children, or grandchildren, follow the pedestrian safety laws. Again, this number increases to about 75% for those that have children or grandchildren and drops to about 25% for those that do not.

Table 6 Pedestrian Safety and Children					
C1: Do you have any children or grandchildren under the age of eighteen?					
Response		w/o missing responses		w/ missing responses	
No		38.57%		33.87%	
Yes		61.43%		54.51%	
No Answer				11.62%	
C2: Have you spoken to your children or grandchildren about the importance of using crosswalks?					
Response	w/o missing responses	w/ missing responses	Respondents with Children	Respondents without Children	no answer
Don't Know	13.57%	11.37%	3.01%	27.23%	78.95%
No	31.12%	26.08%	23.84%	47.77%	5.26%
Yes	55.31%	46.35%	73.15%	25.00%	15.79%
No Answer		16.19%	-	-	
C3: Do you make sure they follow these laws?					
Response	Percentage w/o missing	Percentage w/ missing	Respondents with Children	Respondents without Children	no answer
Don't Know	22.07%	17.68%	10.90%	37.09%	84.21%
No	22.38%	17.92%	15.25%	38.50%	15.79%
Yes	55.55%	44.50%	73.85%	24.41%	-
No Answer		19.90%	-	-	-
C4: Do you think their schools are teaching them about pedestrian safety					
Response	w/o missing responses	w/ missing responses	Respondents with Children	Respondents without Children	no answer
Don't Know	20.97%	17.18%	10.82%	34.39%	65.21%
No	15.54%	12.73%	9.61%	27.60%	8.70%
Yes	63.49%	52.04%	79.57%	38.01%	26.09%
No Answer		18.05%	-	-	-
C6: Are you more likely to use crosswalks when you are with your children or grandchildren					
Response	w/o missing responses	w/ missing responses	Respondents with Children	Respondents without Children	no answer
Don't know	13.45%	11.37%	6.22%	25.57%	13.33%
N/A	0.15%	0.12%	-	0.46%	-
No	8.04%	6.80%	3.73%	16.89%	5.00%
Yes	78.22%	66.13%	89.80%	57.08%	81.67%
Yes/No	0.15%	0.12%	0.25%	-	-
No Answer	-	15.45%	-	-	-

More than 63% of respondents believe that schools teach children pedestrian safety laws. This number becomes about 80% for those that have children or grandchildren and 40% for those that do not. Finally, about three-quarters of the respondents say that they would be more likely to use a crosswalk in the presence of children. This is a very high percentage when coupled with the three-quarters of respondents that always use crosswalks to begin with. In fact, 90% of those with children or grandchildren said that they would be more likely to increase their use of crosswalks in the presence of children. Only two seniors that have children and do not always use a crosswalk were not more likely to use the crosswalk in the presence of children.

It is evident that seniors feel that using crosswalks and obeying pedestrian safety laws is important. In addition, they strive to provide a good example when in the presence of children.

This highlights the fact that they know that when they cross streets away from crosswalks that they are engaging in a dangerous, or at least a non-compliant, activity.

Table 7 contains information on what organizations teach students pedestrian safety.

Table – 7 Organizations that Teach Pedestrian Safety		
C5: Do you know of any organizations that do? (Please list)		
Response	Percentage w/o missing	Percentage w/ missing
Schools	5.06%	0.49%
Police	20.25%	1.97%
Church	5.06%	0.49%
Scouts	11.39%	1.11%
None	34.17%	3.33%
Other Answers	24.05%	2.34%
No Answer	-	90.23%

Only 10% of seniors responded to this question. Of those that responded, about 34% were not aware of any organizations that teach pedestrian safety.

Table 8 contains the responses to the questions concerning public service campaigns. The first two questions asked about general public safety campaigns and message recall. The third question allowed free response and is discussed briefly with results in the appendix. The next three questions concerned behavior response to public service campaigns.

The figures in this table contain some combined values due to some respondents checking more than one box. If a senior checked both television and billboards, then that response is counted under both of these answers. The seniors were about evenly divided on whether or not they recalled a public safety campaign concerning pedestrian safety. If the “Don’t Know” answers are added to the “No” answers, there is a slight majority that did not recall such a campaign. Further, if the seniors that did not answer are considered to not remember a campaign, approximately 60% did not recall a campaign.

As to the types of advertisements they recall, whether or not to include those not answering as having not recalled makes a large difference. If we take 55-60% of the respondents for the percentage that did not recall such a campaign, we can see a problem with these figures. The sum of those who recalled no ads and those who did not answer is 40%. This means that about 20% of the seniors claimed not to recall a message – but remember an ad of some type. Ignoring this, we find that over half the seniors remember a television ad and about 17% recall billboard and radio ads separately. About 30% of seniors remembered ads of more than one type.

Table 8 Public Safety Campaign Recall		
S1: Do you recall any public service messages about pedestrian safety?		
Response	Percentage w/o missing	Percentage w/ missing
Don't know	9.68%	8.28%
No	43.06%	36.84%
Yes	47.26%	40.42%
No Answer	-	14.46%
S2: Which types of advertisement campaigns do you remember?		
Response	Percentage w/o missing	Percentage w/ missing
Billboards	20.18%	16.56%
None	22.58%	22.58%
Radio	21.68%	17.80%
Television	68.22%	56.00%
No Answer	-	17.92%
S9: Would an advertisement describing the possible outcomes of pedestrian accidents be appropriate? Would something lighter be more appropriate?		
Response	Percentage w/o missing	Percentage w/ missing
Don't Know	66.15%	37.21%
Lighter	0.66%	0.37%
No	5.72%	3.22%
Yes	28.57%	16.07%
No Answer	-	43.76%
S7: Which would be most effective to help you remember the crosswalk/pedestrian laws?		
Response	Percentage w/o missing	Percentage w/ missing
Billboards	18.95%	15.57%
Don't Know	16.54%	13.60%
Fines/Ticket	27.06%	22.24%
Television	42.41%	34.86%
No Answer	-	17.80%

When asked what types of ads would be appropriate for this type of campaign, 80% did not know or did not answer. 16% of the seniors felt that the ads they had seen were appropriate, 3% felt that they were not appropriate and 2 seniors felt that the ads should be more light and humorous.

Seniors responded to the question concerning what types of ads would be most effective in a manner that differed from their recall. While over half the seniors recalled television ads concerning pedestrian safety, only 35% felt that this would be the most effective means of publicizing the campaign. About 16% felt that billboards would be the most effective means of publicizing the campaign and almost one-quarter felt that fines and tickets for offenders would be the best means of publicizing the campaign. 30% of the seniors either did not answer or did not know what would be the most effective.

Table 9 contains the responses to the questions most closely related to the “Walk Smart” campaign. Two of the questions contained open-ended responses, which are briefly discussed here. The full responses to these questions can be found in the Appendix.

For the questions directly related to the Walk Smart campaign the seniors answered in a similar fashion to the general pedestrian safety campaign questions. Just over one-quarter of the seniors recalled the Walk Smart campaign. A very similar percentage claim to understand what that campaign was. In addition, the percentage of those that felt that Walk Smart was a success was almost the same as those that knew and understood it. It must be mentioned that there had been little in the way of active public service campaigning in the areas surveyed for quite some time and thus this measures long term recall rather than active, short term recall.

Table 9 Walk Smart Campaign Recall		
S10: Are you familiar with the “walk smart” campaign?		
Response	Percentage w/o missing	Percentage w/ missing
Don’t know	11.16%	10.01%
No	59.50%	53.40%
Yes	29.34%	26.33%
No Answer	-	10.26%
S12: Do you understand what “walk smart” is about?		
Response	Percentage w/o missing	Percentage w/ missing
Don’t know	14.43%	12.24%
No	53.94%	45.74%
Yes	31.63%	26.82%
No Answer	-	15.20%
S13: Do you think that the “walk smart” campaign was a success?		
Response	Percentage w/o missing	Percentage w/ missing
Don’t know	51.85	36.46%
No	15.11424	10.63%
Yes	33.04042	23.24%
No Answer	-	29.67%

Table 10 shows the responses to the question asking which types of ads they remembered seeing. These responses were individual and were aggregated by type of response.

Table 10 S3: What do you remember about these campaigns?		
	% of responses	% of surveys
yes	3.01%	0.49%
no	24.81%	4.08%
about children	4.51%	0.74%
be careful	11.28%	1.85%
good ads	5.26%	0.87%
X walks	4.51%	0.74%
safety	21.05%	3.46%
word	4.51%	0.74%
other	21.05%	3.46%
no answer	-	83.56%

There was not a very high response rate on this question with only 16% giving an answer. Most were unique and are not mentioned individually. The exact responses are included in the appendix. It is obvious that individuals remembered very different things from the ad campaign, or are mixing memories of pedestrian safety information received over periods of time.

IV. Demographic Differences in Survey Responses

There were some significant differences in responses by gender and geographic location that are important to understanding the attitudes of various populations. The responses are examined by both gender and geographic location. The geographic location is designated urban if the senior answered the survey in Baltimore City and non-urban otherwise. The results are only shown for those questions where a significant difference is found in the answers by demographic group.

Table 11 shows the general demographic breakdown of the data.

Table 11 Demographic Breakdown of the Data			
Breakdown by County and Gender			
		% male	% female
Alleghany	8.78%	13.46%	8.16%
Baltimore	18.91%	32.69%	17.06%
Baltimore City	62.18%	36.54%	65.74%
Cecil	3.46%	8.65%	2.77%
Charles	4.94%	6.73%	4.81%
Fredrick	1.73%	1.92%	1.46%
Breakdown by Race and Gender			
		% male	% female
African American	17.80%	4.85%	20.51%
Asian	6.06%	10.68%	5.43%
Caucasian	67.24%	77.67%	68.63%
Hispanic	0.12%	-	0.15%
Other	5.44 %	6.80%	5.27%
No Answer	3.34%	-	-
Breakdown by County and Gender			
		% of Urban	% of Non-urban
Female	84.80%	92.23%	78.07%
Male	12.86%	7.77%	21.93%
No Answer	2.35%	-	-
Breakdown by Race and geographic location			
		% of Urban	% of Non-urban
African American	17.80%	27.08%	4.64%
Asian	6.06%	10.00%	0.33%
Caucasian	67.24%	58.33%	87.42%
Hispanic	0.12%	0	0.33%
Other	5.44 %	4.58%	7.28%
No Answer	3.34%	-	-

First, it should be noted that 62% of the responses were from Baltimore City and thus designated urban. Over 90% of the responses from Baltimore City were women while under 80% of the other county's responses were from women. Thus, men are over represented in rural areas compared to the rest of the sample. About 20% of the respondents were African-American and

about 70% were Caucasian. 27% of the Baltimore City responses were from African-American seniors and 5% of non-urban responses were African-American.

First the general walking characteristics of the population are examined. Table 12 contains the responses to these questions broken down by gender and geographic location.

Table 12 Demographic Pedestrian Habits					
P2: On average, how frequently do you walk on roads?					
		% male	% female	% Urban	% Non
A few times each week	29.14%	27.72%	28.84%	33.33%	22.95%
At least once a week	8.61%	8.91%	8.62%	9.11%	7.87%
Daily	21.19%	32.67%	19.75%	21.78%	20.33%
Don't know	5.69%	4.95%	5.49%	2.67%	8.20%
Less than once a month	24.50%	14.85%	26.33%	20.89%	29.84%
Less than once a week	10.86%	10.89%	10.97%	10.89%	10.82%
P1: Where do you walk the most?					
		% Male	% Female	% urban	% non urban
All	1.77%	0.96%	0.75%	2.87%	
City	47.22%	32.69%	49.93%	67.56%	14.75%
Don't know	4.17%	6.73%	3.87%	0.82%	9.51%
None/Inside	0.39%	0.96%	0.30%	0.42%	0.66%
Rural Areas	13.26%	22.12%	12.07%	4.11%	27.87%
Suburbs	33.08%	36.54%	33.08%	24.23%	47.21%

The first observation to note is that men and women had almost identical responses to frequency of walking with the exception that men walk daily more than women and women are more likely to walk infrequently. Seniors in the city were much more likely to walk in the city than seniors from outside the city. In addition, seniors in the city were slightly more likely to walk more frequently than those in outlying areas.

Table 13 contains the results to the questions concerning general driving behavior broken down by gender and geographic location.

Men were under represented in the urban areas and thus they drove in the suburbs and rural areas more often than their female counterparts. They were also more likely to drive daily (65% to 50%) and claim to understand all driving laws (48% to 23%) than women. Urban drivers were more likely to claim to understand the driving laws (69% to 39%) and to drive frequently than their non-urban counterparts.

Table 13 Demographic Driving Habits					
D1: If you drive a car, where do you drive the most?					
	Male/female	% male	% female	% Urban	% Non-urban
All	5.93%	4.08%	6.16%	12.27%	7.54%
City	23.90%	20.41%	24.64%	41.40%	
Don't Drive	28.81%	24.49%	29.97%	16.49%	40.98
Rural Areas	8.31%	8.16%	8.21%	4.21%	12.13%
Suburbs/Rural	32.88%	42.86%	31.01%	25.61%	39.34%
D2: On average, how frequently do you drive?					
	Male/female	% male	% female	% Urban	% Non-urban
A few times each week	20.75%	13.27%	22.45%	24.10%	17.70%
Daily	51.80%	65.31%	49.06%	56.83%	47.21%
Don't Know	19.10%	11.22%	20.58%	14.75%	23.28%
Less than once a month	1.71%	1.02%	1.87%	2.16%	1.31%
Less than once a week	1.37%	1.02%	1.45%	2.16%	0.66%
Never	5.14%	8.16%	4.57%		9.84%
D3a: Do you know and understand the motor vehicle laws concerning pedestrians and bicyclists?					
	Male/female	% male	% female	% Urban	% Non-urban
Don't know	43.80%	32.96%	45.95%	25.47%	56.58%
No	4.65%	4.40%	4.76%	5.19%	4.28%
Yes	51.55%	62.64%	49.29%	69.34%	39.14%
D3b: Which laws are you familiar with?					
	Male/female	% male	% female	% Urban	% Non-urban
All	28.09%	48.39%	23.29%	31.46%	28.09%

Table 14 contains the results to questions concerning the importance of crosswalks to pedestrian safety by demographic group.

Table 14 Demographic Importance of Utilizing Crosswalks					
P3: Do you think it important to cross the street only at crosswalks?					
		% male	% female	% Urban	% Non
Don't know	1.00%	1.92%	0.88%		2.62%
No	3.12%	6.73%	2.65%	2.22%	4.59%
Yes	95.76%	91.35%	96.32%	97.58%	92.79%
Yes, Not in Suburbs	0.124%		0.15%	0.20%	
No Answer					
P5: If you are not near a corner but are ready to cross the road, would you walk to a crosswalk?					
		% male	% female	% Urban	% Non
Don't know	3.14%	2.88%	3.26%	1.02%	6.56%
No	23.27%	36.54%	21.63%	22.24%	24.92%
Yes	73.58%	60.58%	75.11%	76.73%	68.52%
No Answer					

Note that women were slightly more likely to believe that crosswalks were important for pedestrian safety. This trend, women being slightly more safety conscious will continue throughout the survey. It is also found that women are more likely to walk to a corner to cross at a crosswalk (75% to 60%). This result is repeated with those who live in the city being more likely to cross at a corner as well (77% to 69%). The higher percentage of city respondents that are women may account for this difference in either direction. In other words, it is not possible

from the data to determine if women were more likely to state that they would walk to a corner because they were more likely to be from the city or people in the city were more likely to walk to a corner because they were more likely to be women.

Table 15 contains the results from the questions concerning children and crosswalks.

Table 15 Demographic Children and Pedestrian Safety					
C4: Do you think their schools are teaching them about pedestrian safety?					
		% male	% female	% Urban	% Non-urban
Don't Know	20.97%	26.8%	20.07%	12.01%	31.48%
No	15.54%	19.59%	15.05%	13.13%	18.36%
Yes	63.49%	53.61%	64.87%	74.86%	50.16%
No Answer					
C6: Are you more likely to use crosswalks when you are with your children or grandchildren?					
		% male	% female	% Urban	% Non
Don't know	13.45%	18.56%	12.54%	6.07%	22.62%
N/A	0.15%		0.17%	0.26%	
No	8.04%	13.4%	7.32%	3.96%	13.11%
Yes	78.22%	68.04%	79.79%	89.45%	64.26%
Yes/No	0.15%		0.17%	0.26%	
No Answer					
C2: Have you spoken to your children or grandchildren about the importance of using crosswalks?					
		% Male	% Female	% Urban	% Non
Don't Know	13.57%	16.33%	13.11%	6.97%	21.64%
No	31.12%	31.63%	31.47%	25.47%	38.03%
Yes	55.31%	52.04%	55.42%	67.56%	40.33%
No Answer					
C3: Do you make sure they follow these laws?					
		% Male	% Female	% Urban	% Non-urban
Don't Know	22.07%	23.71%	21.73%	11.66%	33.77%
No	22.38%	26.81%	21.92%	17.20%	28.20%
Yes	55.55%	49.48%	56.35%	71.14%	38.03%
No Answer					

We see that women are about 10% more likely to believe that schools teach pedestrian safety (65%-54%) and that they are also 10% more likely to use a crosswalk more often in the presence of children (80%-68%). The results concerning these questions broken down by geographic location are somewhat striking. Urban dwelling seniors are about 25% more likely to have given the “safety conscious” response to the questions. Urban dwelling seniors were more likely to have: spoken to their children concerning pedestrian safety (68% to 40%), believe that their children follow the pedestrian laws (71% to 38%), believe that schools teach children pedestrian safety laws (75% to 50%), and are more likely to use crosswalks in the presence of children (89% to 64%). This difference is noted across all questions and points to a difference in behavior either along gender or geographic lines that is strong and consistent. Urban dwelling seniors seem to be more aware of the importance of passing good pedestrian habits to their children or grandchildren.

Table 16 contains the demographic breakdown of the results for the questions concerning the impact of public service campaigns on behavior.

Table 16 Demographics Success of Public Safety Campaigns					
S5: Are you more likely to use a crosswalk or intersection now?					
		% male	% female	% Urban	% Non-urban
Don't know	19.20%	22.68%	18.26%	5.99%	35.08%
No	7.14%	11.34%	6.56%	6.27%	8.20%
Yes	73.66%	65.98%	75.18%	87.74%	56.72%
No Answer					
S13: Do you think that the “walk smart” campaign was a success?					
		% male	% female	% Urban	% Non-urban
Don't Know	52.81%	57.64%	51.05%	27.27%	73.11%
No	15.11%	20.00%	14.35%	20.08%	10.82%
Yes	33.04%	22.35%	34.60%	52.65%	16.07%
No Answer					
S6: Do you think these messages changed the attitudes of other people you know?					
		% male	% female	% Urban	% Non-urban
Don't know	27.37%	36.83%	25.50%	10.72%	46.23%
N/A	0.15%	1.05%		0.29%	
No	18.92%	18.95%	18.90%	20.29%	17.38%
Yes	53.54%	43.16%	55.60%	68.70%	36.39%
No Answer					
S4: Did these messages change your behavior?					
		% Male	% Female	% Urban	% Non-urban
Don't know	24.29%	26.04%	24.11%	10.20%	40.33%
N/A	0.31%	1.042%	0.19%	0.60%	
No	31.19%	29.17%	31.83%	30.93%	31.48%
Yes	43.73%	43.75%	43.69%	57.96%	28.20%
Depends	0.47%		0.19%	0.30%	
No Answer					

The same basic trends of women and those living in the city being more safety conscious continue in the responses to these questions. Women were about 10% more likely to give the positive response. Women were: more likely to say that they use more crosswalks after the public service campaign (75%-66%), more likely to think Walk Smart was a success (35%-22%), and more likely to think public service campaigns have changed other peoples behavior (56%-43%). The large difference between urban and non-urban dwelling seniors also continues with the same trend. Urban dwelling seniors were: more likely to say they use crosswalks more now (88%-57%), more likely to say they had changed their behavior due to public safety campaigns (58%-28%), more likely to say that Walk Smart was a success (53%-16%), and more likely to think that other people had changed their behavior as well (69%-37%).

It is clear that the differences in demographic driven responses are large and significant. Women were about 10% more likely to give the “positive” response and urban dwelling seniors were 25-30% more likely to give the “positive” response. Due to the fact that women were over represented in the urban centers, part of this is explained by the gender composition of the sample. However, urban males were more likely to give the “positive” responses than their non-urban counterparts as well. It is clear that the two groups, women and urban seniors, are more safety conscious (as designated by their responses) than their male and non-urban counterparts.

In order to better understand the attitudes of seniors by demographic group, a series of simple regressions are performed. The probability of answering a question with a “positive” response is

modeled as a function of race, gender and geographic location. This is done for all the questions with simple responses and a “positive” behavior response possible. The regression is of the following form:

$$YES = \alpha + \beta_M MALE + \beta_U URBAN + \beta_B AFAM + \beta_A ASIAN + \beta_O OTHER$$

where α is the intercept which represents the base probability of answering yes, β are the coefficients that represent the influence of demographic characteristics on the probability of answering yes to the question, MALE is a dummy variable that is 1 when the respondent is male, URBAN is a dummy variable that is 1 when the respondent is from Baltimore City, AFAM is a dummy variable that is 1 when the respondent is African-American, ASIAN is a dummy variable that is 1 when the respondent is Asian and OTHER is a dummy variable that is 1 when the respondent answered Other or Hispanic (1 individual) to the question regarding race.

Tables 17 and 18 contain the results from these regressions. Table 17 contains the results leaving missing values as unused observations. Table 18 contains the results using missing values as a “negative” answer. It seemed that at least a large percentage of the missing answers were from those who were intending a negative response. Both sets of results will be examined since there is no way to determine which is correct.

The results are presented with coefficients and standard errors in parentheses. The coefficients in *italics* are significant at the 10% level, coefficients in **bold** are significant at the 5% level and coefficients in ***bold italics*** are significant at the 1% level. Cells shaded in red are negative coefficients.

The most striking set of results from this set of regressions is that the coefficient on Urban is always significantly positive. This means that respondents from Baltimore City were significantly more likely to give the positive response to the question than their counterparts from outlying counties. Men were usually less likely to give the positive response and African-Americans often gave different responses than Caucasians, but not always in the same direction. The results will be discussed in detail, leaving the results concerning geographic location for last.

Table 17 – Regression Results without Missing Values						
Regression Coefficients						
	Base	Male	Urban	AfAm	Asian	Other
Important to Cross at Crosswalks	0.93425 (0.01266)	-0.04109 (0.02169)	0.03865 (0.01588)	0.00451 (0.01964)	0.03712 (0.03082)	0.03031 (0.03170)
Walk to Corner to Use Crosswalk	0.70464 (0.02748)	-0.10862 (0.04705)	0.07945 (0.03457)	0.04685 (0.04269)	-0.22747 (0.06691)	0.03753 (0.06953)
Understand Pedestrian Laws	0.84052 (0.02040)	-0.000041 (0.03491)	0.07704 (0.02609)	-0.01696 (0.03309)	-0.02012 (0.05027)	-0.00453 (0.05408)
Understand Driving Laws	0.36575 (0.03056)	0.17165 (0.05526)	0.33834 (0.04634)	-0.16485 (0.06646)	0.09328 (0.10349)	-0.05914 (0.09388)
Spoke to Children about Safety	0.38939 (0.03050)	0.02876 (0.05347)	0.23171 (0.04064)	0.11194 (0.05295)	0.19155 (0.07919)	0.02630 (0.08143)
Children follow Law	0.36986 (0.02988)	0.00126 (0.05260)	0.27875 (0.04074)	0.10743 (0.05322)	0.26248 (0.07865)	0.06098 (0.08286)
Schools teach about Safety	0.51698 (0.02963)	-0.07411 (0.05216)	0.19844 (0.04002)	0.02926 (0.05162)	0.28314 (0.07788)	-0.02185 (0.07903)
More likely to use Crosswalk with Children	0.65695 (0.02518)	-0.05776 (0.04441)	0.24297 (0.03361)	-0.02272 (0.04319)	0.05164 (0.06420)	-0.01330 (0.06644)
Did Public Campaigns Change Behavior	0.24709 (0.02992)	0.06454 (0.05293)	0.23257 (0.04201)	0.14908 (0.05270)	0.31432 (0.07654)	0.18076 (0.08416)
Do you use more Crosswalks	0.56078 (0.02637)	-0.01424 (0.04649)	0.27738 (0.03585)	0.06229 (0.04514)	0.14980 (0.06638)	0.08545 (0.07042)
Did other people change behavior	0.36097 (0.02991)	-0.04862 (0.05319)	0.23742 (0.04152)	0.15818 (0.05226)	0.31353 (0.07494)	0.07208 (0.08181)

The base figures represent the probability that a Caucasian female from a county outside Baltimore City would answer the question with a “Yes”. So, 94% of this base population believe it is important to cross at crosswalks, 70% say they would walk to a corner to use a crosswalk, 84% claim to understand pedestrian laws, 37% claim to understand the driving laws, 39% say they have spoken to their children concerning pedestrian safety, 37% believe their children follow these laws, 52% believe that schools teach children about pedestrian safety, 66% say they are more likely to use a crosswalk in the presence of children, 25% believe that public safety campaigns have changed their own behavior, 56% say they use crosswalks more following safety campaigns and 36% say that other people have changed their behavior as a result of the public safety campaign.

Men were significantly less likely to think that it is important to cross at a crosswalk and they would walk to the corner to use a crosswalk less than women. In 7 of the 11 questions the coefficient for Male was negative. The only significant positive coefficient was that men are 17% more likely to say they understand the driving laws.

African-Americans had responses that were significantly different than the white seniors for 5 of the 11 questions. They are much less likely to say they understand the driving laws than their Caucasian counterparts. This may reflect the lower driving rate for African Americans in this survey. African Americans tend to claim a more conscientious approach to teaching their children. They were 10% more likely to have spoken to their children (or grandchildren) about pedestrian safety, and 10% more likely to think that their children follow the pedestrian laws. African Americans are also significantly more optimistic about the influence of public service

campaigns. They were 15% more likely than their Caucasian counterparts to think that public safety campaigns changed both their own and other peoples behavior.

Asians had responses that were significantly different than Caucasians (and African Americans) in 7 of the 11 questions. Asians were almost 25% less likely to walk to a corner to use a crosswalk than both Caucasian and African American respondents. They were also much more likely to have spoken to their children concerning pedestrian safety and believe that their children follow the pedestrian laws. In addition, they were much more likely to believe that schools teach children pedestrian safety laws. They were also significantly more optimistic about the impact of public safety campaigns than either Caucasians or African Americans. Asians were twice as likely to think that such campaigns changed their behavior and other people's behavior than were Caucasians. They were also 15% more likely to say that their use of crosswalks has increased since hearing campaigns. The sign for the coefficients of Other respondents follow that of African Americans, without the significance.

Urban seniors had responses that were overwhelmingly positive relative to their non-urban peers. They were slightly more likely to think using crosswalks were important (but this started at a 93% response). They were almost 10% more likely to say they would walk to a corner to use a crosswalk and that they understand pedestrian laws. They were nearly 34% more likely to say that they understood the driving laws and 20% more likely to believe that schools teach children about pedestrian safety. For the other 6 questions, urban seniors were approximately 25% more likely to answer in the positive to the questions. This consistency is remarkable given that gender and race are controlled for in these estimations.

Table 18 Regression Results with Replacement of Missing Values						
Regression Coefficients						
	Base	Male	Urban	Black	Asian	Other
Important to Cross at Crosswalks	0.92928 (0.01395)	-0.03256 (0.02394)	0.02339 (0.01745)	0.02295 (0.02163)	0.05511 (0.03400)	0.01875 (0.03462)
Walk to Corner to Use Crosswalk	0.70021 (0.02790)	-0.09757 (0.04788)	0.05407 (0.03489)	0.07381 (0.04326)	-0.20066 (0.06800)	0.01555 (0.06923)
Understand Pedestrian Laws	0.83385 (0.02414)	0.03973 (0.04142)	-0.02370 (0.03019)	-0.00828 (0.03743)	0.05800 (0.05883)	-0.07832 (0.05989)
Understand Driving Laws	0.35379 (0.02905)	0.22000 (0.04983)	-0.05342 (0.03632)	-0.09792 (0.04503)	0.05732 (0.07078)	-0.11208 (0.07206)
Spoke to Children about Safety	0.38447 (0.03111)	0.05083 (0.05338)	0.05928 (0.03890)	0.10885 (0.04823)	0.26033 (0.07581)	0.00961 (0.07718)
Children follow Law	0.36403 (0.03079)	0.03423 (0.05283)	0.05282 (0.03850)	0.12182 (0.04774)	0.35206 (0.07504)	0.01321 (0.07640)
Schools teach about Safety	0.50369 (0.03114)	-0.03696 (0.05343)	-0.02350 (0.03894)	0.08130 (0.04828)	0.36435 (0.07589)	-0.00879 (0.07727)
More likely to use Crosswalk with Children	0.64572 (0.02976)	-0.03587 (0.05106)	-0.00147 (0.03722)	0.04435 (0.04614)	0.22092 (0.0725)	-0.00291 (0.07384)
Did Public Campaigns Change Behavior	0.24378 (0.02883)	0.08229 (0.04947)	0.02935 (0.03605)	0.21298 (0.04470)	0.46410 (0.07026)	0.11482 (0.07153)
Do you use more Crosswalks	0.54769 (0.03009)	0.01091 (0.05163)	0.00607 (0.03763)	0.17562 (0.04666)	0.38269 (0.07334)	0.08391 (0.07467)
Did other people change behavior	0.35340 (0.02996)	-0.03243 (0.05141)	0.00819 (0.03747)	0.23061 (0.04645)	0.52341 (0.07302)	0.05675 (0.07434)

The lower number of significant coefficients shows the dilution of the results when including the missing answers as negative responses. Several of the results are still strong enough to be apparent even when this change is made to the data. The men are less likely to walk to the corner to use the crosswalk and are more likely to claim an understanding of the driving laws. The rest of the coefficients are not significant in these regressions. None of the urban coefficients are significant in this regression. The cells shaded red represent negative coefficients.

In general, we find that the main demographic results from the analysis of means carry through to the regression results. The over representation of women in the city and in general, changes the value of some of the response rates but not the general results concerning demographics that were found above. In addition, the large percentage of African Americans from Baltimore City did not skew the analysis above either.

The lower rates of men responding positively to the questions about behavior and children seems to have been a result of the men being under represented in the city (since urban positive response rates to these questions were much higher). The rest of the results seem to hold even when controlling for race, gender and location simultaneously.

V. Focus Group Results

The surveys were followed by focus groups conducted at six senior centers in Maryland. Two of these were from Baltimore City, two were from Baltimore County and two were from outlying counties. The focus groups are identified by location and date in Table 19.

Table 19 - Senior Center Focus Groups	
Senior Center and Address	Date
Alleganey County Senior Center 19 Frederick Street Cumberland, MD	July 30, 2002
Richard R Clark Senior Center 1210 Charles Street LaPlata, MD	Monday September 16, 2002
Greenmount Senior Center 425 E. Federal Street Baltimore, MD	Wednesday November 6, 2002
Mount Street Senior Center 1114 Mount Street Baltimore, MD	Wednesday November 13, 2002
Cockeysville Senior Center 10535 York Road Cockeysville, MD	Thursday January 16, 2003
Pikesville Senior Center 1301 Reistertown Road Pikesville, MD	Friday January 24, 2003

Our primary analytical framework for the focus groups was drawn from critical ethnography and studies of practice and discourse in public policy (Van Maanen, 1988; Forester, 1999; Throgmorton, 1996). Such a methodology relies on qualitative interpretative inquiry and seeks to understand the unique and contextual rather than make generalized propositions about the “responses”. An analysis of the focus groups reveals the following propositions concerning senior attitudes toward pedestrian activity:

- Old age, including poor eyesight/blindness prevents many senior citizens from walking.
- Most senior citizens do not walk because streets are not pedestrian friendly. Blindness furthers compounds the issue.
- Pedestrian crossings are equally pedestrian unfriendly.
- Most of the senior citizens are aware of pedestrian safety laws, but are unhappy with the aggressiveness of the motorists. Even those citizens that are not aware are also annoyed at aggressiveness of motorists.
- Most of the seniors do use crosswalks and take other precautions when walking.
- Driving habits and destinations vary among those senior citizens who drive.
- Most seniors talk to their grandchildren about pedestrian safety when they are young.
- The seniors expressed mixed feelings about the school’s role in teaching pedestrian safety.
- Most of them felt that are no other organizations except schools that teach pedestrian safety
- None of them had heard about the walk smart campaign, but most recollect some sort of a public service message about pedestrian safety. There were only a few that never saw any type of public service message about pedestrian safety.
- Many felt that stricter traffic rules would be more effective than campaigns.
- Despite the general emphasis on stricter traffic rules, seniors did leave some hope for campaigns.
- Bicyclists pose a serious threat of accident to senior citizens.

The following paragraphs illustrate the above propositions with quotes from the focus groups. As stated, old age, including poor eyesight/blindness prevents many senior citizens from walking. For example, one citizen from Mount Street Center, which is in an urban area said, “I ride a bus. I am not able to walk far. I can walk to the store.” This is also true for seniors who live in rural counties. For example, a citizen from Cumberland senior center stated that “I usually walk on the treadmill (laughter); it is either too hot, too cold or raining outside.” Another citizen stated, “ Most of my walking is in the house or from the garage parking into here.” Baltimore county residents also face the problem. For example one citizen from the Pikesville Senior Center stated “I am legally blind so I have trouble with curbs and steps. I have fallen so many times that I am afraid but I try when I can.” Another citizen in the same center stated “That is the same thing with me so I use county transportation, the buses or I get a ride from somebody.”

One reason most senior citizens do not walk is because streets are not pedestrian friendly. Blindness furthers compounds the issue. For example a blind citizen from the La Plata Senior Center stated that, “There are so many drivers that pedestrians have been discouraged to walk. The people have been told in the neighborhoods that it is not safe to walk in the street and to go

to the mall and walk, but I walk all around. I would like to say that as a general rule, no matter what provisions are made for pedestrians in Charles county, that they do not lose sight of the Federal Access Act, which provides that everyone is given the same access to cross the street safely. You will find if you walk around that there may be a ramp or crosswalk cut out for wheelchair people, but no concern has been shown for the blind and visually impaired pedestrians. The first thing you know because they have not adhered to the act saying that there should be some indication by tactile means, or have a different texture when you are nearing the end of the walk. If you are blind with no indication by tactile indication on your feet, the next thing you know, you have walked into the street. Also putting traffic signals into effect with a sound system for visually impaired and blind people will alert them when to cross. Because of the nature of the layout of the street, everything is in circles and there is no such thing as straight lines, if you walk a straight line you're walking off the sidewalk into the road, that is why it's important to have guidelines of curves. You also have a difficult time hearing traffic on a circular road. I have also found that crosswalks are being put in the middle of the intersections. And there is no way to know that they are there. There should be a system to indicate a crosswalk when you approach them. There is technology there for talking crosswalks. If they want disabled people to be independent and are teaching blind children and older people how to get along they have to make it possible for us to move about."

The unfriendliness of pedestrian crossings further compounds the issue. A citizen from the Mount Street Senior Citizen Center stated that "I try to cross at the light, but it is difficult where I live even to go to the store across the street." Another citizen from the same center stated that "Morning time is OK to cross but in the afternoon more traffic makes it difficult." Another citizen from the same center stated, "There isn't a walkway at the senior center. There is one at the corners; they have to go there. There is a crosswalk there, but by the time they reach it the light changes and the driver is speeding up. You have to hustle to get across the street."

One of the employees at the Pikesville Senior Center pinpointed the problem by stating that "I think usually people are in hurry and so if they see there is no traffic coming. The trouble is even at cross walks the cars don't respect the fact that somebody might be walking. So it is really scary. I do a lot of walking locally and I cross Reisterstown Road and it is really bad. We finally got a Walk signal, which was a big help, but they are too fast. People want to make that right turn or left turn and it is just bad."

The same problem also exists in rural counties. For example, one employee from the Cumberland Senior Center stated, "It is very congested and I park up by the Times Building, if you ever waited for that walk signal it would take forever because it never works. It comes from two way traffic to one way, everybody is looking around for what is going to happen next, you have people coming down from the bridge, it's just very congested."

The sheriff, who attended the focus group reiterated the perception by stating "A new light system would help and the majority of traffic here is traffic friendly not pedestrian friendly. Normally when you get the walk signal at Baltimore Street and Mechanic it lasts only a minute, if that. And if you have somebody such as the lady next to me with a prohibitive handicap to get across the street you need much more than a minute to get across two lanes of traffic that are 12 feet wide each. That is very prohibitive. We have a lot of seniors up stairs here who go to Frederick Street here on the corner to go to Eagle's, the small restaurant here, take their life into

their own hands. There is no real walk way, you have to go down to the fire station or walk all the way down the block. There is no real way to get across. Today, just put in a pedestrian stop sign here at city hall.” He continued “for somebody who is ambulatory or in a wheel chair. You can’t get a cross there. The motoring public is in hurry; everybody knows that, everybody has to get there first. That is a big issue here and a lot of drivers don’t realize that pedestrians have the right-of-way. I don’t think there is enough education to tell the drivers that they have to stop for pedestrians.”

It is important to note that most of the senior citizens are aware of pedestrian safety laws, but are unhappy with aggressiveness of the motorists. Even those citizens that are not aware are also annoyed at aggressiveness of motorists. For example, a citizen from the LaPlata center stated, “I know that the pedestrian always has the right-of-way. When we learned the laws it was during the time where most of us were getting our licenses, they have been updated since then. We know the crosswalks are for pedestrians that they should cross there. You try to look out for them and make sure they are safe and hopefully they look out for you.”

To cite another example, a citizen from the Cockeysville senior center stated, “I know that if there are pedestrians crossing in the crosswalk cars are required to stop, they often don’t however. But as a driver, I always pay attention to the laws.” Seniors from the Mount Street Senior Center stated similar sentiments. “I don’t know about the laws, but it seems to me that when you try to cross the street that the driver speeds up.” Another citizen stated, “See so many people think that because they have the green light, that they have the right-of-way. They are not going to slow for the pedestrian.” According to another citizen of this center “drivers need to be more aware of when the pedestrian gets off the curb. Whether the light is red or green, that the pedestrian should have the right-of-way. Like most of the people here are seniors, they might get confused and once they start going across if they see traffic. You got to turn around to go back to the sidewalk.” Yet another citizen from the same center stated, “When you are in the crosswalk you got to continue. But they want to speed up and they don’t want to give you a chance to cross. So you have to decide to move forward or turn backwards. Going backwards is dangerous too because you have cars coming down and cars coming up. When you are walking you have to be certain that the light is red. If its red and this one down here on Martin Luther King Boulevard and Crescent Street are green, they are going to speed up. They do not look out for you. You go to look out for the ways all the lights are going and get up on the side.”

It should be noted that most of the seniors do use crosswalks and take other precautions when walking. For example one participant from Mount Street Center stated, “I try to cross at the light” Another citizen from the same center sated, “Yes. I watch for the traffic and I wait for the red light. I can see it from where I cross but I am not at it.” Another citizen from the same center stated, “ I try to cross in the middle, but there is so much traffic coming from everywhere it is hard to cross there. The policeman told me not to try to cross there, that I should go to the light and wait for it to cross. I don’t try that no more. And I don’t walk at night.” Yet another citizen stated, “The crosswalk is just a block away from me and they have a red light. I cross there.” A citizen from the Cockeysville Senior Center stated “It also depends on the time of day. During rush hour, I would defiantly use the crosswalks.” One citizen from the La Plata Center stated “ If I know there is a crosswalk available, I try to use it. The hardest part is going through parking lots when there are no cars there. You will find yourself in a circle. I try to wear light or

fluorescent colors, I also usually carry a whistle or sound device where if I don't feel that I am hearing things sufficiently, I will blow the whistle to bring attention to myself."

The focus groups revealed that the driving habits and destinations vary among those citizens who drive. For example, one citizen from the Greenmount Center stated that, "I do not drive everyday." Another stated that "I drive about every three days." Yet another stated "I mostly drive. Mostly straight from uptown to here." One citizen from the Cockeysville center stated "well I drive in the city, but mostly suburbs." One citizen from the La Plata center stated that "I drive on the highways, and on roads. You drive the highways, you take trips." Another citizen stated "you have to have a car. It is important to have a car. We drive everyday, you walk fifteen feet out of your house to your car, you don't get out until your destination."

It is interesting to note that most seniors talk to their grandchildren about pedestrian safety when they are young. For example, a citizen from the La Plata Senior Center stated, that she tells her grand children "stay out of the street until cars brake and that type of thing." A citizen from the Pikesville Senior center stated, "when they were little I would." Another citizen from the same center reiterated this by stating "When they were younger and I was with them if we got to an intersection and the light was red we would wait a whole turn before we would cross."

It should be noted that the seniors expressed mixed feelings about the school's role in teaching pedestrian safety. One citizen from La Plata Senior Center stated, "I have my doubts, I used to be a school bus driver, we had evaluations, all they wanted to do was get the kids on and off the bus in a certain amount of time whether it was done right or not." An employee from the Cumberland Senior Center stated, was even more vociferous in her statement, which was, "they don't even teach driver's ed in schools any more. When I graduated high school that was part of the curriculum and now they cost is so much, \$175 or so some people cannot afford it anymore. So the kids get to 18 years old they go up to DMV, they take the 15-minute test and they are out on the street. They have never driven in snow, they have never driven in rain, they are learning as they go." The perception was also true for citizens in urban areas. For example, a senior from the Mount Street Senior Center stated, "sometimes they do, but I have passed a couple of schools where they have no one to help the kids cross."

In contrast, a citizen from the Greenmount Senior Citizen Center stated, "they all learn that in school. How to be safe. How to cross." One citizen from the Cockeysville Senior Center stated pedestrian safety was taught at schools when her children were growing up. Another citizen from the center stated, "actually, the school district that my children went to, we owned our own buses. So we had safety people who came around at least twice a year and gave a little seminar in the auditorium".

As stated, most seniors felt that there are no other organizations except schools that teach pedestrian safety. For example a citizen from the Cockeysville Senior Center stated that she was not aware of any organization teaching pedestrian safety. Another citizen stated, "I am trying to think of something, I think police come in occasionally and talk about it." This is also true for seniors in the La Plata and the Mount Street Senior Citizen Centers since none of the citizens were aware of any other organization that taught pedestrian safety. However one citizen from the Cumberland Senior Center, who grew up in Friendsville in Garret county, stated "not that I know

of here but the community I grew up in does bicycle safety day at the community park and they give out free helmets.”

It is intriguing to note that none of the seniors had heard about the walk smart campaign, but most recollect some sort of a public service message about pedestrian safety. There were only a few that never saw any type of public service message about pedestrian safety. For example, a citizen from Cumberland senior center said, “I remember seeing one about just safety, getting across the street, the school kids crossing.” Another citizen from the same center stated “I saw one with a woman backing out with the horn “beep-beep-beep” and hits the kid. That is the only one I remember.” A citizen from the Pikesville Center had not seen any public service messages on pedestrian safety lately but remembered seeing them earlier. Most of the citizens at the Greemount and the La Plata senior Centers had seen back to school safety campaigns on TV. None of the citizens at the Mount Street Senior Center and Cockeysville Senior Center recalled having seen any public service messages on pedestrian safety either on TV, on Billboards or on the radio.

The focus groups revealed that many seniors felt that stricter traffic rules would be more effective than campaigns. For example, one citizen from the La Plata Senior Center stated that people do not look at billboards because they do not have time when they are driving. However, this citizen stated, “Whoever is wrong should get a ticket.” Another citizen from this center reflected the same sentiment by stating, “Give them tickets, the person who is walking in the street.” A citizen from the Cockeysville Senior Center stated, “I think you wouldn’t do it more than once if you got a ticket for illegally crossing.”

Despite the general emphasis on stricter traffic rules, seniors did leave some hope for campaigns. For example, seniors at the Greenmount Senior Center felt that safety messages in Korean by the Korean radio station would be helpful. One citizen from the Pikesville Senior Center felt that the TV would be the best media for public safety campaigns. One citizen from the Cumberland Senior Center stated, “there are not enough of them; they’re not bright enough; they’re not focused enough. Focused enough that you want to watch them; you say I know that and go on with what you are doing. If they were brighter, more focused, and made more sense you would watch them.” Another citizen from the Cockeysville Senior Citizen Center felt that a TV commercial would be appropriate.

Finally, it is to be noted that bicyclists pose a serious threat of accident to senior citizens. For example, a citizen from the Cumberland Senior Center stated, “the bicyclists are another whole issue.” Another citizen reflected, “They are on the mall running around when you are walking.” The citizen continued, “you see this is tourist town now, with that Canal Place and everything. They have bike trail now from Pittsburgh to Washington and this is one of the stops here in Cumberland. They come down through Canal Place to the path and they stop if they want to buy something or eat. They should have someplace to put their bikes on a rack or something.”

VI. Conclusions and Recommendations

The report shows that seniors consider pedestrian safety an important issue and that they are concerned about their safety when walking on roads. Both the survey responses and the focus

group comments underscore this concern. The extra care shown in the presence of children further highlights the concern given this subject.

The study found several key results that are important for understanding the attitudes concerning pedestrian safety. First, the attitudes differed across demographic and geographic groups. Urban seniors were considerably more likely to claim that they act safely than those living in non-urban areas. In addition, African-Americans were more likely than Caucasians to claim that they act safely even after controlling for their geographic location.

This is an important finding for public service campaigns. Minorities are at higher risk to be involved in pedestrian-vehicle accidents nationwide (and in Maryland), yet they claim to behave safely at a higher rate than their Caucasian counterparts. This means that the task of a safety campaign is potentially more difficult.

In addition, different target groups have different preferred means of receiving information. Urban seniors, and particularly African-American seniors, are more likely to think that billboards are the most appropriate means of publicizing the safety issues. Non-urban, and particularly Caucasian seniors, are more likely to believe that radio and television ads are more appropriate.

In contrast to the survey responses, focus group discussions implied that seniors believe that stricter rules and enforcement may be better than public safety campaigns. However, African-Americans are much less likely to believe that fines are appropriate for pedestrian non-compliance. Due to the lack of publicity concerning the Walk Smart campaign in the months leading up to this study, the results concerning message recall might not be representative of the success of this campaign.

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Appendix A – The Survey

Pedestrian Safety Questionnaire

This questionnaire is being carried out for the State Highway Administration to gather information about attitudes and knowledge concerning pedestrian safety laws. Only a short answer is required, so please make your answers as brief as possible. All demographic information is used for research purposes only and will be confidential. Thank you for your time.

Demographics

1. Birth Date: Month_____, day_____, and year_____
2. Male_____ or Female_____
3. Caucasian_____ African American_____ Hispanic_____ Asian_____ Other_____

Pedestrians

1. Where do you walk the most?
City_____ Suburbs_____ Rural areas_____
2. On average, how frequently do you walk on roads?
Daily_____ A few times each week_____
Less than once a week _____ At least once a week _____
Less than once a month_____
3. Do you think it important to cross the street only at crosswalks?
Yes_____ No_____
4. What influences your choice of whether or not to use a crosswalk?
5. If you are not near a corner but are ready to cross the road, would you walk to a crosswalk?
Yes_____ No_____
6. Do you know and understand the pedestrian laws involving crosswalks?
Yes_____ No_____

Drivers

1. If you drive a car, where do you drive the most?

City_____ Suburbs_____ Rural areas_____

2. On average, how frequently do you drive?

Daily_____ A few times each week_____

Less than once each week_____ Less than once each month_____

3. Do you know and understand the motor vehicle laws concerning pedestrians and bicyclists?
Which laws are you familiar with?

Children

1. Do you have any children or grandchildren under the age of eighteen?

Yes_____ No_____

2. Have you spoken to your children or grandchildren about the importance of using crosswalks?

Yes_____ No_____

3. Do you make sure they follow these laws?

Yes_____ No_____

4. Do you think their schools are teaching them about pedestrian safety?

5. Do you know of any organizations that do? (Please list)

6. Are you more likely to use crosswalks when you are with your children or grand grandchildren?

Yes_____ No_____

Public Service Messages

1. Do you recall any public service messages about pedestrian safety?

Yes_____ No_____

2. Which types of advertisement campaigns do you remember? (please check all that apply)

Television_____ Radio_____ Billboards_____

3. What do you remember about these campaigns?

4. Did these messages change your behavior?

Yes_____ No_____

5. Are you more likely to use a crosswalk or intersection now?

Yes_____ No_____

6. Do you think these messages changed the attitudes of other people you know?

Yes_____ No_____

7. Which would be most effective to help you remember the crosswalk/pedestrian laws?

Issuing tickets/fines_____ Billboards_____ Television ads_____

8. Is there information or a type of advertisement campaign that would help you or other people better understand the laws?

9. Would an advertisement describing the possible outcomes of pedestrian accidents be appropriate? Would something lighter be more appropriate?

10. Are you familiar with the “walk smart” campaign?

Yes_____ No_____

11. Where did you hear of the campaign?

12. Do you understand what “walk smart” is about?

Yes _____ No _____

****If you would be willing to participate in a focus group about these issues, please write your name and phone number below. Any information that you give will be held totally confidential. If you would prefer to have us contact you through your local senior center, please state that and write your name, your senior center, and a contact phone number at that center. Thank You.**

Appendix B – Written Free Responses to Questions

Table 20, P4: What influences your choice of whether or not to use a crosswalk?			
Answers	Frequency	Answers	Frequency
safety	67	cars will stop there	1
Safety	38	city road/county road	1
traffic	38	corner	1
Traffic	24	danger from cars	1
Amount of traffic	14	depends on where the xwalk is	1
Distance	6	depends where I am	1
Accidents	4	destination	1
Always cross at crosswalk	4	distance to nearest crosswalk	1
for safety	4	don't cross	1
safer	4	don't have them in our area	1
Heavy traffic	3	don't know	1
None	3	don't know-look for light	1
Signs	3	don't want to get hit with a car	1
To be safe	3	drivers watch at xwalk	1
traffic flow	3	fast cars	1
weather	3	have back problem	1
Because it is safe	2	heavy traffic, safety	1
Car	2	how close im to the xwalk	1
Heavy Traffic	2	how far away it is, how busy street is	1
I feel safer	2	how much traffic there is, only if cars are in site	1
Safety reasons	2	how near it is to where Im headed	1
Traffic flow	2	how traffic respects the pedestrian	1
Traffic lights	2	if cars are parked too close	1
if road is clear of coming traffic	2	if it is there	1
if there is one	2	if its available, walk in mall	1
its safer	2	if its not nearby, city or countty	1
location	2	if its smooth n not near highways	1
my safety	2	if no cars are coming	1
safety first	2	if no traffic at all	1
safety reasons	2	if no xwalk look both ways	1
the amount of traffic on the road	2	if one is there	1
the flow of traffic	2	if there is traffic coming many times they don't stop for xwalks	1
too much traffic	2	if theyre close enough	1
Intresections & crosswalks has all traffic view	1	if traffic is heavy	1
A lot of Traffic	1	if traffic is light	1
About traffic	1	if traffic is light, I wont use xwalk	1
Age and the yellow stripes	1	if traffic is really busy	1
At xwalks peds have the ROW	1	in county areas they are none	1
Because of traffic	1	its more safe	1
Because of turning on red	1	its much safer, I feel much safer	1
Best for me	1	its safer as I have a red light too	1

Table 20, P4: What influences your choice of whether or not to use a crosswalk?			
Answers	Frequency	Answers	Frequency
Busy Streets	1	its safer because of stoplight	1
Cause accidents	1	its safer my legs arent too good	1
Common sense	1	its safer tp cross at crosswalk	1
Convenience, Traffic condition	1	its safer, drivers are more alert at xwalks	1
Cross at the lights	1	it's the law	1
Dangers of Accidents	1	it's the law and not to be killed	1
Drivers don't respect Pedestrians	1	lack of traffic	1
Getting killed	1	legality	1
How heavy the traffic is & distance to corner	1	more safer	1
I can't walk as fast any more	1	my own common sense	1
I don't know	1	my own safety	1
I don't like to be a statistic	1	no cars are coming	1
I thought that was the purpose of xwalks	1	no traffic the xwalk far fr where I cross	1
I use xwalk everytime on eastern ave in city	1	not known	1
I walk slow	1	not safe	1
If the light is green at traffic lights	1	nothing	1
If there is a light	1	only use xwalk	1
If there is no traffic	1	people should b/c will cause arguments	1
It is the only way to cross	1	personal safety	1
It's safe	1	quickest route	1
Longer time for seniors	1	red lights	1
Motorists don't give you a break even with signs	1	safe thing to do	1
My father taught me	1	safer, traffic stop for peds at xwalk	1
My personal safety	1	safety all drivers should be aware of the people	1
My safety	1	safety to use xwalk	1
Nothing	1	safety walk in mall	1
On coming Traffic	1	safety!	1
SAFETY	1	safety, cannot walk on my own	1
Safe	1	self	1
Safety & Traffic	1	short method	1
Safety assurance	1	so cars can see the xwalk	1
Sight & Security	1	some corners of turns	1
Slow at walking	1	some sidewalks are in poor shape	1
Speed of oncoming cars	1	staying alive	1
Speeding Traffic	1	stripes on the street	1
Speeding cars	1	that's why they put it there	1
The Light	1	that's the proper place to walk	1
The amount of traffic	1	the length of the block and volume of traffic	1
The speed of the cars on the road	1	the light of the liner	1
The traffic	1	the safest place	1
Time for Appt.	1	the traffic	1
To ensure safe crossing	1	they are to be used	1

Table 20, P4: What influences your choice of whether or not to use a crosswalk?			
Answers	Frequency	Answers	Frequency
Traffic Pattern	1	time	1
Traffic Safety	1	to get on the other side	1
Traffic and safety	1	traffic and lights	1
Traffic light	1	traffic heavy or lights	1
Traffic light and Flow	1	traffic light	1
Traffic stops for people	1	traffic, marked xwalks	1
Turning cars at intersections cuts peds off	1	traffic, width of street	1
Turning on red has taken ROW from ped.	1	traffic-vehicular	1
Use it if it is there	1	volume of traffic	1
Want to be safe	1	volume of traffic speed limits	1
Weather	1	walk	1
Where it is located	1	walk on treadmill, safety	1
You can see which way the traffic is coming	1	weather and time of day	1
You must use xwalks if you want to live	1	what coming	1
advertising laws	1	when its painted	1
amount of traffic on the highway	1	when theres no /broken sidewalk	1
avoid being hit by a car	1	where I need to go (warren rd york ave)	1
bc I think I have row n cars should look for me	1	where car is parked	1
because you never know drivers will do, in a hurry	1	whether I am in a rural area or not	1
cars turning from side streets	1		

Table – 21, C5: Do you know of any organizations that do? (Please list)	
Answers	Frequency
No	22
no	3
police dept	3
AAA	2
Don't know	2
police	2
scouts	2
55 alive, church	1
AAA, TPA	1
Arms Center	1
Church	1
Church,school & some recreation places	1
Cross walk guards (Police)	1
Crossing Guards	1
Don't Know	1
Girl and Boy scouts	1
MVA	1
Many Senior Groups	1
Nil	1
No Idea	1
Parkville community concil/neighborhood asse.	1
Police Department	1
Police dept	1
Public xssing guards	1
Safe Haven	1
School	1
Scouts	1
Senior Centers	1
Senior centers	1
Sunday School	1
The Police	1
boy scouts	1
boys club	1
cub scouts	1
driving schools	1
elementary schools	1
girl scouts	1
kids too far	1
kids too little to understand	1
kids too young	1
not sure, not often with them	1
nurse programs in hospitals, bge, churches	1
parents	1
police department	1
pta	1
safety city	1
senior citizens	1
state/county/city police	1
they don't live here	1
vet orgs, boy scouts	1

Table – 22, S3: What do you remember about these campaigns?			
Answers	Frequency	Answers	Frequency
nothing	11	better to be safe than sorry, but also buckle up	1
not much	5	cant remember	1
Safety	4	cant remember ads, influenced by tv and billboards	1
No	3	cartoons	1
Safety first	3	catch the eye	1
safety	3	cooking,diets,movies	1
Nothing	2	cross at the green and not between...	1
be careful	2	crossing guards fussing with adults fro crossing	1
wording	2	d	1
yes	2	do what they say	1
message impact, clever presentation,seriousness	1	don't drive and talk on phone	1
About using xWalks	1	drive with care	1
Can't remember	1	follow rules and be safe	1
Cant remember	1	forgot	1
Children walking & talking about xssing the street	1	good message to children and adults	1
Discussing Pedestrian rights	1	helpful	1
Emphasis on safety	1	introduced to new products of use	1
Ensure no vehicles either way	1	it's the law you can be fined	1
Health, Safety	1	large print	1
I do not remember/hearing anything about campaign	1	logo	1
Instructions	1	look before crossing, cross only at xwalks	1
Make children aware of dangers	1	look both ways before crossing	1
Message of importance to me	1	lots	1
No much	1	mostly annoying and not to the point	1
None	1	n/a to disabled people	1
Not much	1	never cross the street between cars	1
Obey the law	1	newspaper, remember nothing	1
Observe traffic lights and cross at corners	1	no	1
Safety part	1	not looking in all directions	1
Safety precautions	1	obey laws	1

Table – 22, S3: What do you remember about these campaigns?			
Answers	Frequency	Answers	Frequency
Safety tips	1	people injured by carelessness, fines for disobedience	1
Seeing the Children being taught	1	police and children had a verse about xwalks	1
Some are impressive, some not	1	reminding bicyclists that law applies to them too	1
Speed limit	1	safety in crosswalks and # of accidents prevented	1
Stress Safety	1	safety slogan	1
The accidents that show	1	seat belts for kids, truck driving	1
The message	1	stop look and listen	1
The safety part	1	stop signs	1
They are very good	1	telling public to use walkways	1
They stated the obvious	1	the danger of not using a xwalk	1
To be safe	1	the importance of everyone obeying all laws	1
To stay alert	1	the one with a singable tune	1
Use extreme care	1	their message	1
Use the xwalk & cross safety	1	they are infrequent	1
Very effective	1	too many ads	1
Yes	1	use caution	1
You're aware of the danger of not crossing at the xw	1	very informative	1
about traffic safety	1	watch the children at school crossings	1
all	1	watching children crossing street	1
always cross at xwalks	1	wording, coloring	1
be careful always	1	wordy	1
be more careful	1	wordy message	1
better to be safe than sorry	1	wordy, pictures	1

Table – 23, S8: Is there information or a type of advertisement campaign that would help you or other people better understand the laws?			
Answers	Frequency		Percent
and tv	26	cant think of one right now	1
No	9	contant reminders	1
yes	6	description	1
TV	5	don't know	1
no	3	education	1
I don't know	2	enforce todays laws audible signs ped traffic signs no pedest xing at stcharles pkwy	1
People need to be told the bad side of accidents	2	finestv/billboards all good	1
Television	2	flyers around sr centers	1
and billboards	2	get a poster child	1
tv	2	if there was a purpose and interesting	1
visits to senior clubs to discuss ped safety	1	internet	1
Don't know	1	issue pamphlet	1
Emphasis on safety should be taught in elementary	1	make pamphlets available	1
Have some advertisement campaign	1	make rules accessable, mail to homes, follow w/	1
Info from senior Centers	1	many sign board advertising	1
Make information mass available	1	maybe a speaker would be nice	1
Maybe TV ads	1	more advertising	1
Media, signs at crosswalks	1	need speakers on this	1
No Idea	1	newspaper	1
No, enough is being done to alert people	1	none of the above	1
None I can think of	1	not a lot of crosswalks in suburbs, understand law	1
People don't pay attention to crossing	1	not really	1
Picture ads	1	not that I know of	1
Picture advertisement	1	pass out flyers	1
Programs on safety rules and regulations.	1	ped laws only heard of w/DMV so campaign would hel	1
Repeated TV info	1	plain talking to someone	1
Show sign with Fine for violation	1	probable	1
Speakers at Senior Centers	1	radio and billboard	1
Street Signs	1	same as above	1
TV Commercials & Radio Ads	1	school and colleges	1
TV public service	1	sending leaflets to people's homes	1
They would understand it is the law being enforced	1	show stats on death or injuries	1
Wheelchair safety	1	showing you with pictures of the rules	1
Work Shops	1	signs on streets	1
Yes	1	talk about it here at the center	1
advertise in sr cntrs	1	tv about xwalks	1
all	1	tv and billboards	1
all of the above	1	tv and newspaper	1
all of the above, occasional police speakers	1	tv and radio	1

Table – 23, S8: Is there information or a type of advertisement campaign that would help you or other people better understand the laws?		
Answers	Frequency	Percent
and radio ads	1	1
and tv, I think it would be best to advts outcomes	1	1
and tv, all of the above	1	1
and tv; fines!	1	1
and tv; yes	1	1
booklets	1	

Table – 24, S9: Would an advertisement describing the possible outcomes of pedestrian accidents be appropriate? Would something lighter be more appropriate?	
Answers	Frequency
Don't Know	301
Lighter	3
No	21
Yes	125
Yes/No	5

Table – 25, S11: Where did you hear about the campaign?			
Answers	Frequency	Answers	Frequency
TV	25	N/A	1
tv	14	Never	1
No	9	Overhearing conversations	1
Yes	8	Parks and recreation	1
Television	3	Police community relations	1
newspaper	3	Radio, TV	1
no	3	School	1
school	3	School, TV	1
Radio	2	Senior	1
don't remember	2	Senior Center	1
radio	2	Senior centers	1
A friend	1	Senir group at Waxter Center	1
At Harford Center	1	Tel	1
At Malls	1	Waxter Center	1
Ateaze Sr Center	1	While I was working	1
Bayview Hospital	1	\	1
Can't remember	1	advertisements	1
Cant recall	1	charles co sr cntrs	1
Club, GGRP Bldg	1	dept of aging balto co	1
From a Friend	1	friend	1
FromSafe Haven at church	1	granddaughter's school	1
Fyers	1	lots of places	1
Harbor Center	1	never heard of it	1
Harbor Hosp.	1	parkville sr cntr	1
Have no heard	1	senior center	1
Here & There	1	television	1
How to obey signs	1	tv and newspaper	1
I belive it would be cross only at designated	1	tv and radio	1

Table – 26,D3: Do you know and understand the motor vehicle laws concerning pedestrians and bicyclists? Which laws are you familiar with?			
Answers	Frequency		Frequency
all	36	all the laws	1
both	19	all vehicle laws	1
peds have right of way	8	all, I take a 55 alive class every 2yrs.	1
Both	5	all, drove for 40yrs.	1
all of them	5	allow peds to cross	1
none	3	be careful	1
pedestrians	3	bikes w/helmets;lots of rules	1
All of them	2	boht	1
Needs to know more	2	cross at crosswalks	1
Pedestrian's	2	don't have license	1
they have right of way	2	give them R.O.W	1
All laws concerning ped & bicyclists	1	most of them	1
At xwalks, they have the right of way	1	mostly all	1
Be careful at all times	1	mostly all laws	1
Bicyclists do not respect ped.	1	mostly peds	1
Cyclists & Peds in same traffic flow direction	1	motor	1
Giving right of way to ped.	1	motor vehicle laws	1
I do but nobody else does	1	motor vehicles	1
I drive slow	1	must stop at crosswalks	1
I think I know quite a bit about the laws. I take a 55 alive every 3 yrs it's a 1 day 2 wk course	1	n	1
I think so	1	need refresher course	1
Just took AARP senior course	1	neither	1
None	1	no jaywalking watch signal for lights	1
None of them	1	not bikes	1
Not all laws	1	ones about peds	1
Ped ROW, Be careful with Bicyclists	1	ped have ROW, bicyclists ride on the left of the road	1
Ped ROW, Bicyclists abide by the law	1	ped laws	1
Ped ROW, Don't know about bicyclists	1	pedestrians bicyclists	1
Ped has ROW at all times espc. At marked xwalks	1	pedestrians have right of way	1
Ped have ROW	1	peds and bikes have right of way	1
Ped have the right of way	1	peds at xwalk, you wait	1
Ped. Right of way,Cyclists should not travel on the sidewalks	1	peds have right of way always	1
Pedestrian	1	peds have right of way, bikes same as cars	1
Pedestrian has ROW	1	peds have right of way; bikes same as cars	1
Pedestrian has right of way at crosswalks	1	peds have row and bikes consdrd vehicles	1
Pedestrian have right of way	1	peds have row bikes should obey same as cars	1
Pedestrian, Cycling facing traffic	1	peds have the right of way	1

Table – 26,D3: Do you know and understand the motor vehicle laws concerning pedestrians and bicyclists? Which laws are you familiar with?		
Answers	Frequency	Frequency
Pedestrians	1 peds right of way	1
Pedestrians have right of way	1 peds right of way, bikes same as cars	1
ROW	1 peds should have the row	1
Right of way	1 right of way law	1
Slow down when approaching cyclists, Stop at Ped-x areas	1 somewhat bikes	1
The one crossing street	1 stop at xwalk watch for bikes who're in their lanes and at xings	1
The ones for Baltimore, MD	1 stop for pedestrians	1
The right of way	1 they have right of way always	1
Took 55 alive course and saved on Insurance	1 those governing safety	1
Vehicle laws & pedestrian's	1 unsure which ones	1
Yield to those on crossroad	1 using xwalks	1
a very few	1 where they ride	1
all laws	1 where they walk/ride	1
all of the above	1 yes	1

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