MANVILLE BOROUGH STREET SMART PEDESTRIAN SAFETY CAMPAIGN

October 2018

ACKNOWLEDGEMENTS

RideWise would like to thank the following partners for a successful Street Smart pedestrian safety campaign in Manville:

The Borough of Manville Mayor Richard Onderko Andrea Wardrop, Administrator Mark Peltack, Chief of Police Vince LoMedico, Manville DPW Lt. Thomas Herbst, Manville Police Traffic Division ARC of Somerset & Jerry Davis Center for Children & Families Manville Area Credit Union Manville School District

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EXECUTIVE SUMMARY

RideWise Inc. partnered with the Manville Police Department and Borough of Manville to conduct a Street Smart New Jersey pedestrian safety campaign in May 2018. The campaign was conducted with the support of local businesses and organizations. Manville Borough Police supported the campaign through ongoing community policing and pedestrian and driver

enforcement. The campaign included 159 hours of pedestrian safety law enforcement by the Manville Police, who issued 51 warnings and 32 summonses during the campaign.

The campaign lasted eight weeks with education and enforcement activities occurring during the month of May. During this time, RideWise staff conducted observations at two intersections along Main Street.



The observations showed that most pedestrians used crosswalks and crossed with the walk signals during those periods. However, there were issues with pedestrians crossing mid-block or deviating/drifting from the crosswalks. Some pedestrian behaviors showed an improvement between the pre- and post-campaign observations, while others did not.

Drivers failing to stop for pedestrians was the biggest violation recorded during the precampaign observations. The post-campaign observations saw increases in the percentage of distracted drivers and in the percentage of drivers who did not stop and stay stopped. The percentage of cyclists riding correctly with the flow of traffic also declined between the pre- and post-campaign observations.

As part of the campaign, surveys were also circulated before and after the education and enforcement efforts to gauge public awareness of Street Smart and New Jersey's pedestrian safety laws. All survey respondents understood when they were supposed to cross the street at a signalized intersection, however the pre-and post-campaign observations found many people did not follow the law. Survey respondents said distracted driving was the most serious problem in the community, followed by drivers not yielding to pedestrians. The surveys showed that the Street Smart campaign in Manville resulted in a significant increase in awareness of the Street Smart messages, enforcement efforts, and an emphasis on pedestrian safety throughout the community. While the campaign helped to reduce some non-compliant behavior by drivers and pedestrians, other non-compliant behaviors actually increased during the duration of the campaign. It is recommended that ongoing pedestrian, driver and cyclist education and enforcement be ongoing along Main Street, in the community and in the schools to address pedestrian safety concerns in Manville Borough.

STREET SMART OVERVIEW

Street Smart NJ is a public education, awareness and behavioral change campaign developed by

the North Jersey

Transportation Planning Authority (NJTPA) and funded through Federal Highway Administration resources. Street Smart promotes safe travel behavior through education and enforcement of

ALL TAN	RideWise Inc. @RideWise - Jun 15 Manville residents - please complete the Street Smart "post campaign" online survey and get entered into a drawing for a \$100 gift card.						
	Paste the link below	nto your browser, your very back is greatly appreciated.					
	The extra strain that will be a strain of the strain the straint the strai	Street Smart Manville RideWise and Manville Borough are working to improve pedestrian safety on Main Street. Please help us raise awareness of pedestrian safety issues and help make					
	docs.google.com						

pedestrian laws. The campaign responds to New Jersey's designation as a "focus" state by the Federal Highway Administration because of its relatively high rate of fatal pedestrian crashes compared to other areas of the country.

825 pedestrians were killed and more than 22,000 injured on New Jersey's roadways from 2013-2017.¹ This translates to one death every 2.2 days and 12 injuries daily. The goals of the campaign are to educate drivers and pedestrians and to provide targeted enforcement. The campaign focuses on the following five messages:

- 1. Obey Speed Limits
- 2. Stop for Pedestrians
- 3. Wait for the Walk
- 4. Use Crosswalks
- 5. Heads Up, Phones Down

Street Smart was piloted by

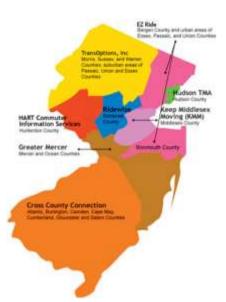


NJTPA in November 2013 across four northern and central New Jersey communities – Newark, Jersey City, Hackettstown and Woodbridge – and on Long Beach Island in July 2014. The campaign has since expanded to more than 80 communities across the state. Manville Borough is one of four municipalities in Somerset County to have conducted Street Smart campaigns to date.

¹ New Jersey State Police Accident Statistics 2017

RIDEWISE & STREET SMART

After the success of the first five pilot Street Smart campaigns, NJTPA's goal was to continue to bring attention to the issue of pedestrian safety statewide. The NJTPA invited the regional Transportation Management Associations (TMAs) to conduct Street Smart NJ campaigns within their designated service areas to expand the program's reach throughout the state. RideWise is one of eight TMAs in New Jersey and the agency is the designated TMA for Somerset County. The agency's mission is to connect people and businesses to safe and



sustainable travel options. To date, the agency has conducted Street Smart campaigns for North Plainfield and Somerville Borough. Both campaigns achieved reductions in unsafe behaviors among drivers and pedestrians.

Manville was chosen for a Street Smart campaign at the request of Mayor Richard Onderko due to the high rate of pedestrian-vehicle crashes. Manville experiences more pedestrian crashes than other areas of the county. Data from Numetric, the crash analysis tool from Rutgers University's Center for Advanced Infrastructure and Transportation (CAIT), showed 104 crashes involving vehicles and pedestrians/cyclists from 2006 to 2016. Almost all of these conflicts occurred

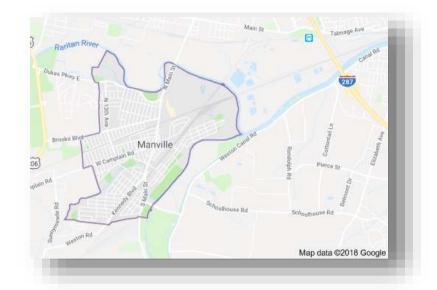


along Main Street. Three incidents involved

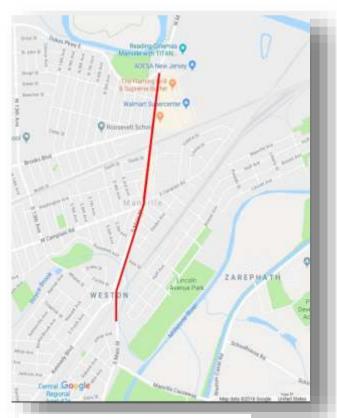
fatalities and another eight resulted in incapacitating injuries. In 2017 alone, there were eight vehicle-pedestrians crashes along Main Street. In response to these findings, and at the Mayor's request, RideWise began discussions with Manville Borough officials in late 2017 to propose a Street Smart program for spring 2018. Due to the high level of crashes involving pedestrians, RideWise staff hung Street Smart signage along Main Street and distributed educational materials to businesses in November 2017 as an interim step.

MANVILLE BOROUGH

The estimated population of Manville Borough is 10,488 with a total land area of 2.449 square miles. The municipality is the fifth most populous in the county with a density of 4,167.5 people per square mile. County Route 533 (Main Street) is a heavily traveled roadway both for accessing the adjacent businesses as well as



an alternative north-south route to Route 206. There are numerous small businesses along the road, Manville municipal offices, and two large mall parking lots (including the ADESA Auto Auction) which generate a lot of traffic. The roadway varies between two and five lanes, with parking in many locations, and sidewalks throughout; the speed limit varies from 25 mph to 40 mph. There is no NJ TRANSIT bus service along Main Street, but there is Somerset County bus service. Six of the intersections are signalized, and nine are unsignalized.²



² Manville Main Street RSA Report

In 2015, a Road Safety Audit (RSA) was conducted along a one-mile section of County Route 533 in Manville. This audit was done in response to the 2014 NJTPA network screening of crashes on county and municipal roadways. The audit found that the segment of Main Street between Kennedy Boulevard and Dukes Parkway was ranked the number one most dangerous pedestrian corridor in Somerset County. On the list of pedestrian spots, Main Street at Beekman Street ranked number two in the county. Somerset County was awarded a \$3 million federal grant for pedestrian improvements along Main Street from Dukes Parkway on the north end to Kennedy Boulevard on the south end. The funding is being provided through NJTPA's Local Safety program. The Mayor of Manville encouraged the Borough's participation in the Street Smart campaign while the road diet project moved into the design phase.

Manville Borough is committed to pedestrian safety. The Borough formally adopted a Complete Streets policy in



RideWise walking school bus in Manville

October 2015. The Borough schools participate in RideWise's Safe Routes to School, an educational program that helps to reduce vehicle speeds and stem distracted driving, making Main Street safer for students walking to school. The Manville School District is a walking district. Courtesy or hazard busing is not provided, and due to the borough's small size, a higher percentage of students bike or walk to school. Students who attend Manville High School, Alexander Batcho Intermediate School or Roosevelt School walk along Main Street to Brooks Boulevard to reach those schools.



MANVILLE STREET SMART CAMPAIGN

The Street Smart campaign was a collaborative effort between RideWise, the Manville Borough Police Department, the local businesses community and Manville Borough officials. The campaign in Manville was modeled closely after the pilot programs implemented by the NJTPA in Newark, Jersey City, Woodbridge, Hackettstown, Long Beach Island and the previous campaigns coordinated by RideWise in North Plainfield and Somerville. RideWise coordinated two planning meetings attended by representatives from the police department, town officials and the business community in November 2017 and February 2018 to identify the target areas for education and enforcement. Two target intersections were identified as priorities for pedestrian safety: South Street & South Main Street and Brooks Boulevard & North Main Street.



TARGET INTERSECTION #1

N. Main St. & Brooks Boulevard

- 4-way intersection
- Pedestrian head signals
- 4 lanes with one turn lanes on Main Street
- Multiple turn lanes



TARGET INTERSECTION #2

South Street & S. Main Street

- 3-way intersection
- No traffic control devices
- Non-signalized turn lane
- No pedestrian head signals
- Line of sight issues

The campaign lasted eight weeks with education and enforcement activities concentrated during the month of May. The campaign consisted of pre- and post-campaign components including an online survey and intersection observations. The program was evaluated through pre- and postcampaign intersection observations which were conducted by RideWise staff. While not statistically significant, these quantitative measures provide an indication of the short-term impact of the Street Smart campaign.

Mayor Onderko and members of the business community distributed Street Smart safety tip cards and brochures to Manville residents and people who work in the Borough. Additionally, businesses



Mayor Richard Onderko (left) and Chief of Police, Mark Peltack

displayed signage in store fronts and a Street Smart banner was displayed in front of the municipal building.





ENFORCEMENT

Manville Borough Police supported the campaign's education and enforcement activities through ongoing community policing efforts. Active enforcement took place during the first two weeks of the campaign by officers on patrol. As the Chief of Police commented with regard to the enforcement, "We hit the area pretty strong during the first two weeks so it looks like the message was heard." The majority of warnings and summons Manville Police issued were for failure to stop for pedestrians in marked crosswalks. Distracted driving was the second highest violation. A total of 159 man hours was dedicated by the police to the enforcement component of the Street Smart campaign. Manville Joins State Safety Campaign to Reduce Pedestrian-Motor Vehicle Crashes

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		May 1 to	o May 15	May 16	to May 31
Street Smart					
Message	Category	Warnings	Summons	Warning	Summons
Obey Speed Limit	Speeding	5	8	0	0
Heads Up Phones					
Down	Distracted Driving	9	8	0	0
Stop for					
Pedestrians in	Stop for Ped in				
Crosswalks	Marked Crosswalk	29	12	0	0
	Failure to use				
Use Crosswalks	Crosswalk/Jaywalk	3	4	0	0
	Crossing against				
Wait for the Walk	the signal	5	0	0	0
	Totals	51	32	0	0

SPEED SENTRY

Manville Police displayed a speed sentry device to gauge the effectiveness of the Street Smart campaign on the behavior of drivers. The sentry was displayed at the intersection of South Street and South Main Street where the posted speed limit is 25 mph. During the pre-campaign period, 30 percent of northbound vehicles (28,662) passing through the intersection were cruising above the posted speed limit. During the post-campaign, 29 percent of northbound vehicles (28,424) were above the posted speed limit. The statistics show less than a 1 percent reduction in the number of drivers exceeding the posted speed limit. A review of the data from the speed sentry revealed a discrepancy in the number of southbound vehicles traveling through the intersection during the post campaign. The reason for the discrepancy could not be determined. Therefore, only the northbound data was analyzed for this report and it is not attributable to campaign activities.

April 2018 Speed Sentry – Northbound (Pre-campaign)

< 25 mph	25 mph	> 25 mph	Total vehicles
39,959	27,448	28,662	96,069

June 2018 Speed Sentry – Northbound (Post-campaign)

< 25 mph	25 mph	> 25 mph	Total vehicles
42,055	28,191	28,424	98,670

April 2018 Speed Sentry – Southbound (Pre-campaign)

< 25 mph	25 mph	> 25 mph	Total vehicles
36,165	24,361	24,736	85,262

June 2018 Speed Sentry – Southbound (Post-campaign)

< 25 mph	25 mph	> 25 mph	Total vehicles
9,641	6,461	6,512	22,614

EDUCATION & OUTREACH

Throughout the campaign, RideWise utilized a number of approaches to spread the Street Smart message. The Department of Public Works and the Police hung posters at all Main Street intersections to reinforce the public safety message. News releases were shared by local print and online media sources. Street Smart materials were obtained from NJTPA including safety tip cards, posters, tent cards, coffee sleeves, and coasters. The business community was very receptive to the Street Smart campaign, offering to hang posters in their windows, hand out coffee sleeves and coasters to their customers, and display tent cards on counters and tables. Safety tip cards, posters, tent cards, coffee sleeves, and coasters were displayed at the following businesses:

- Discount Mattress
- Cyburts Liquor Store
- DeSantis Cabinetry
- Manville Diner
- Drewby's Pub
- Nittoli's Deli
- Jewelry Exchange
- J&L Bakery
- Manville Pizza
- Manville Area Credit Union
- ARC of Somerset
- Manville Library
- Manville Borough Hall
- Manville DPW

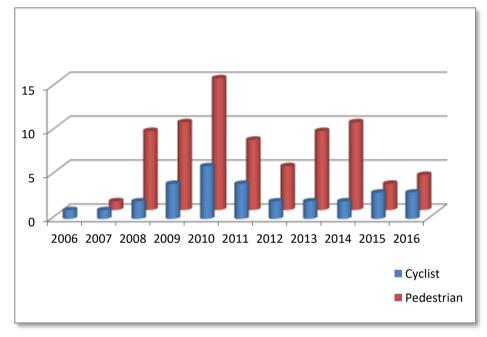


RideWise and Manville Borough also posted photos, graphics, and blurbs on its website, Facebook page, and Twitter feed to raise awareness of the campaign. A Street Smart banner was displayed on the lawn of the police station along Main Street. Manville Area Credit Union distributed Street Smart materials to customers and employees, and the ARC of Somerset distributed materials to parents at its daycare center.

INTERSECTION OBSERVATIONS

RideWise began the pre-campaign work in April 2018 with intersection observations at the two target intersections. Prior to the observations, RideWise reviewed data from the Numetric crash analysis tool maintained by Rutgers University's Center for Advanced Infrastructure and Transportation (CAIT). Between 2006 and 2016, there were 76 crashes involving vehicles and pedestrians and 28 crashes involving vehicles and cyclists. Three incidents involved fatalities and another eight resulted in

incapacitating injuries. Nearly one-third of crashes – 25 – were attributed to distracted driving. The majority of the crashes occurred during the months of March, April, May, August and September. Almost all of the crashes occurred along Main Street supporting the decision to make it the focus of the Street Smart campaign.



The intersection observations were performed immediately before and after the Street Smart campaign in order to observe changes in walking and driving behavior. Pre-campaign observations were performed Wednesday and Friday, April 16 and 18, from 11 a.m. to 2 p.m. The team observed 140 pedestrians, 38 drivers, and 12 cyclists during those times. Post-campaign observations were completed Wednesday, June 6, from 10 a.m. to 1 p.m. and 1 p.m. to 4 p.m. The team observed 87 pedestrians, 24 drivers, and 15 cyclists during those times. Normally, the pre- and post-campaign observations are conducted on the same day of the week, at the same time, to control for variables. However, the unusually rainy weather during the spring made observing at the same times impossible and also resulted in a smaller sample size for the post observation. The following charts show the behaviors of pedestrians and drivers at the two intersections:

	Pre-Campaign (64 pedestrians)		Post-Campaign (37 pedestrians)	
Behavior:	#	%	#	%
Pedestrians used crosswalk	50	78%	28	76%
Pedestrians were texting or on phone	0	0%	0	0%
Pedestrians deviated from crosswalk*	6	9.3%	6	16%
Pedestrians were crossing mid-block	8	12.5%	3	8%

Intersection #1 – Pedestrian Activity on South Main Street & South Street

*Pedestrian starts in the crosswalk but fails to follow it for the entire crossing.

Most pedestrians used crosswalks and crossed with the walk signal during the pre and post campaign observations. However, there were some pedestrians crossing mid-block and deviating from the crosswalks. The percentage of pedestrians deviating from the crosswalk increased between the preand post-campaign observations. The percentage of pedestrians crossing mid-block declined, however the sample size of pedestrians was so small that this change cannot be considered statistically significant.

Intersection #2 – Pedestrian Activity on Main Street & Brooks Boulevard

	Pre-Can (76 pede		Post-Campa (50 pedestri	
Behavior:	#	%	#	%
Pedestrians used crosswalk or crossed with the signal	40	53%	34	68%
Pedestrians crossed against the signal	12	16%	11	22%
Pedestrians were texting or on phone	1	1%	1	2%
Pedestrians deviated from crosswalk	11	14%	1	2%
Pedestrians were crossing mid-block	12	16%	3	6%

Most pedestrians used crosswalks or crossed with the signal during the pre- and post-campaign observations. There were issues with pedestrians crossing against the signal. There were considerable improvements in two metrics between the pre- and post-campaign observations. The percentage of pedestrians deviating from the crosswalk declined, as did the number of pedestrians crossing midblock. However, the sample size of pedestrians observed was so small that this change cannot be considered statistically significant.

	Pre-Campaign (34 drivers)		Post-Campaign (23 drivers)	
Behavior:	#	%	#	%
Driver stopped for pedestrian in crosswalk	15	44%	4	17%
Driver did not stop and stay stopped	6	18%	6	26%
Driver was texting or on phone	0	0%	3	8%
Driver did not yield to pedestrians when turning	13	38%	3	13%

Intersection #1 – Driver Activity on South Main Street & South Street

The biggest violation during the pre-campaign observation was drivers failing to yield for pedestrians when turning. However, this metric did show improvement in the observations following the campaign. Given the small sample size, this data is not considered to be statistically relevant. The number of drivers who did not stop and stay stopped showed no improvement between the pre-and post-campaign.

Intersection #2 – Driver Activity on Main Street & Brooks Boulevard

	Pre-Campaign (4 drivers)		Post-Campaign (1 driver)	
Behavior:	#	%	#	%
Driver stopped for pedestrian in crosswalk	4	100%	1	100%
Driver did not stop and stay stopped	0	0%	0	0%
Driver was texting or on phone	0	0%	0	0%
Driver did not yield to pedestrians when turning	0	0%	0	0%

At Main Street and Brooks Boulevard, four drivers were observed during the pre-campaign observation and one was observed during the post campaign observation. Given the extremely small sample size, this data is not considered to be statistically relevant.

Intersection #1 – Cyclist Activity on South Main Street & South Street

Observations of complaint and non-complaint behavior among cyclists are not part of the Street Smart NJ campaign. However, some cyclists passed through the intersections during the pre- and post-campaign observations and this activity was noted.

	Pre-Cai (4 cyc	npaign clists)	Post-Campaign (5 cyclists)	
Behavior:	#	%	#	%
Cyclist was riding correctly with traffic	2	50%	1	20%
Cyclist was texting or wearing ear buds	0	0%	0	0%
Cyclist was weaving in and out of traffic	0	0%	0	0%
Cyclist was not riding with traffic	2	50%	4	80%

The percentage of cyclists riding correctly with the flow of traffic decreased between the pre and postcampaign observations. The percentage of cyclists not riding with the flow of traffic increased between the pre and post observations.

Intersection #2 – Cyclist Activity on Main Street & Brooks Boulevard

	Pre-Car (7 cyc		Post-Campaign (10 cyclists)	
Behavior:	#	%	#	%
Cyclist was riding correctly with traffic	1	14%	3	30%
Cyclist was texting or wearing ear buds	0	0%	0	0%
Cyclist was weaving in and out of traffic	0	0%	0	0%
Cyclist was not riding with traffic	6	86%	7	70%

The percentage of cyclists riding correctly with traffic improved between the pre and post campaign. However, this improvement was offset by the decrease in the percentage of cyclists not riding with the flow of traffic.

CAMPAIGN SURVEY RESULTS

An online survey was circulated throughout during the two-week pre- and post-campaign phases. The survey used the same questions from NJTPA's prior Street Smart campaigns. Manville

business partners distributed palm cards with a live link and quick response (QR) code to the survey. The survey was also distributed through Manville's community newsletter, the Borough's website, and RideWise's Twitter and Facebook pages.



Respondents were given the option of entering a raffle for a \$100 Amazon gift card. The survey was created using Google Forms and asked respondents to report their walking and driving behaviors and what they observed others doing on the road. The survey included questions on the respondents' knowledge of New Jersey's pedestrian safety laws and awareness of the Street Smart campaign in Manville. Demographic information was also captured in the survey. RideWise only surveyed respondents who either lived and/or worked in Manville. Respondents were asked if they were older than 18 years of age and whether they lived or worked in the Borough before they could complete the rest of the survey.



The pre-campaign survey generated 125 responses from individuals over the age of 18. 67.4 percent of respondents lived in Manville and 26.5 percent lived and worked in the municipality. More than half of respondents were between the ages of 35 and 54 years of age. The post-campaign survey generated 106 responses from individuals over the age of 18. The majority, 72 percent, lived in Manville. 17 percent lived and worked in Manville. More than half of the respondents were between 35

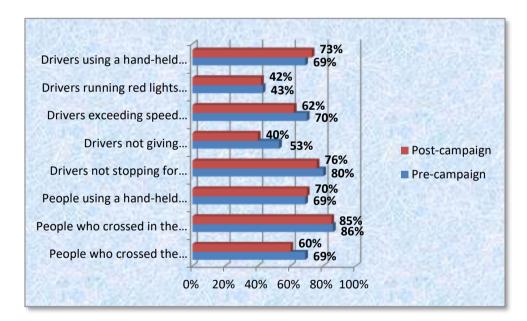
and 54 years of age. The pre- and post-campaign responses were compared to determine the

impact of the Street Smart campaign.

*Percentages may not total 100 due to rounding. Some questions had respondents answering "yes" to multiple categories.

	Pre-Campaign (125 responses)		Post-Campaign (106 responses)	
Behavior:	#	%	#	%
Drivers using a hand-held phone while driving	87	69%	77	73%
Drivers running red lights or stop signs	54	43%	45	42%
Drivers exceeding speed limit in areas of heavy pedestrian traffic	88	70%	66	62%
Drivers not giving pedestrians the right of way when making a left or right turn	66	53%	42	40%
Drivers not stopping for pedestrians in the crosswalk	100	80%	81	76%
People using a hand-held phone while walking or crossing the street	86	69%	74	70%
People crossing in the middle of the block	107	86%	90	85%
People cross the street against the walk signal	86	69%	64	60%

IN THE PAST WEEK, WHICH OF THE FOLLOWING BEHAVIORS HAVE YOU SEEN IN MANVILLE?



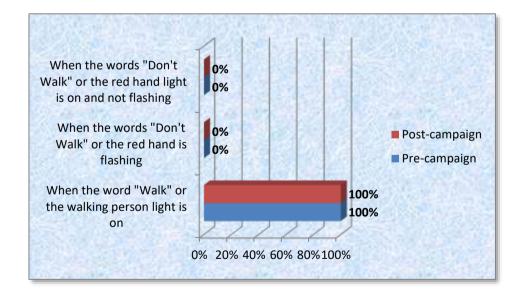
Unsafe walking and driving behaviors were reported by all respondents in the pre-campaign. The top three violations observed were pedestrians crossing in the middle of the block outside of a crosswalk, drivers not stopping for pedestrians in crosswalks and drivers exceeding the speed limit. When prompted for other behaviors observed, individuals reported the following:

"Pedestrians feel entitled to be given the right of way" "Speeding down Main Street" "Drivers going around stopped drivers" "People walking into moving vehicles" "Drivers going wrong way on one-way street" "Tailgating, tinted windows, etc." "Drivers in Lost Valley speeding and not stopping at stop signs" "Driving wrong way on one way street" "Not using signals"

Post campaign survey results show a decrease in almost all unsafe walking and driving behaviors across all categories. However, pedestrians crossing in the middle of the block outside of crosswalks and drivers not stopping for pedestrians in the crosswalk still remained the top two violations in the post survey, which reflects the need for ongoing driver and pedestrian education and enforcement in Manville.

AT SIGNALIZED INTERSECTIONS, WHEN SHOULD YOU BEGIN TO CROSS THE STREET?

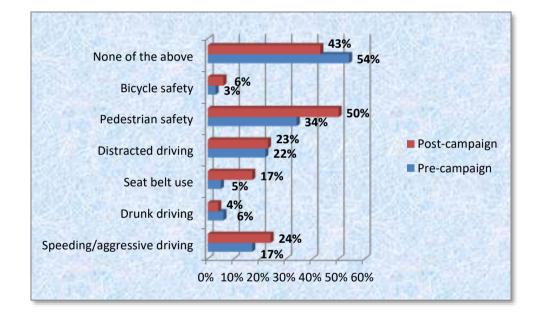
	Pre-Campaign (125 responses)		Post-Campaign (106 responses)	
Behavior:	#	%	#	%
When the words "Don't Walk" or the	0	0%	0	0%
red hand light is on and not flashing				
When the words "Don't Walk" or the	0	0%	0	0%
red hand is flashing				
When the word "Walk" or the walking	125	100%	106	100%
person light is on				



All respondents understood when to cross the street at a signalized intersections, which is in contrast to the behavior observed during the pre- and post-campaign observations. Awareness of the law is not an overwhelming factor in compliance.

		Pre-Campaign (125 responses)		mpaign ponses)
Messages	#	%	#	%
None of the above	68	54%	46	43%
Bicycle safety	4	3%	6	6%
Pedestrian safety	42	34%	53	50%
Distracted driving	27	22%	24	23%
Seat belt use	6	5%	18	17%
Drunk driving	8	6%	4	4%
Speeding/aggressive driving	21	17%	26	24%

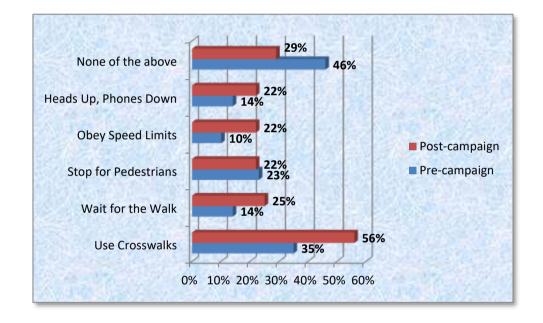
IN THE PAST **30** DAYS, HAVE YOU READ, SEEN OR HEARD ANY MESSAGES IN MANVILLE ADDRESSING THE FOLLOWING?



More than half of the pre-campaign survey respondents (54 percent) reported they had not seen any messaging addressing safe driving, walking or cycling. After the conclusion of the Street Smart campaign, this number dropped to 43 percent. The number of respondents who reported seeing pedestrian safety messaging increased from 34 percent in the pre-campaign survey to 50 percent in the post-campaign survey.

		Pre-Campaign (125 responses)		mpaign ponses)
Signs:	#	%	#	%
None of the above	58	46%	31	29%
Heads Up, Phones Down	17	14%	24	22%
Obey Speed Limits	13	10%	23	22%
Stop for Pedestrians	29	23%	23	22%
Wait for the Walk	18	14%	27	25%
Use Crosswalks	44	35%	59	56%

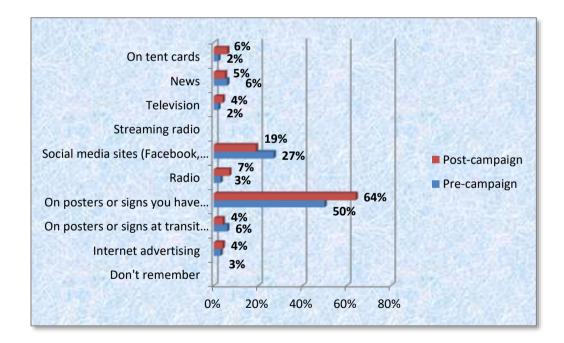
IN THE PAST **30** DAYS, HAVE YOU READ OR HEARD ANY MESSAGES THAT ENDORSE ANY OF THE FOLLOWING SIGNS?



Less than half of pre-campaign survey respondents (46 percent) reported that they had not seen any Street Smart messaging or signage prior to the start of the campaign. After the campaign concluded, only 29 percent of post campaign respondents said they had not seen any Street Smart messaging. The "use crosswalks" message was the most popular message seen by respondents during the pre and post campaign periods. Respondent awareness of four out of the five messages increased between the pre- and post-campaign surveys. The percentage of respondents who had seen the "use crosswalks" message increased from 35 percent to 56 percent between the pre- and post-campaign surveys.

	Pre-Campaign (125 responses)		Post-Campaign (106 responses)	
Messages seen:	#	%	#	%
On tent cards	3	2%	6	6%
News	7	6%	5	5%
Television	3	2%	4	4%
Streaming radio	0	0%	0	0%
Social media sites (Facebook, Twitter, Instagram)	34	27%	20	19%
Radio	4	3%	8	7%
On posters or signs you have seen while driving or walking	63	50%	68	64%
On posters or signs at transit stations and on/in buses	7	6%	4	4%
Internet advertising	4	3%	4	4%
Don't remember	0	0%	0	0%

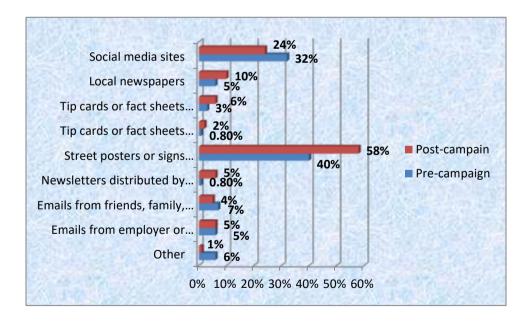
WHERE HAVE YOU SEEN OR HEARD THESE MESSAGES?



Half of the pre-campaign respondents (50 percent) saw the Street Smart messaging on the street signs and posters displayed throughout Manville. 64 percent of post-campaign respondents saw the street signs and posters. This is attributable to posters and signage displayed on Main Street in fall 2017 at the request of the Mayor. Social media also played an important role in raising awareness of pedestrian safety with 27 percent of respondents seeing messages during the pre-campaign and 18 percent of respondents seeing them in the post campaign.

Pre-Campaign Post-Campaign (125 responses) (106 responses) # % # % Messages seen: 8 1% Other 6% 1 Social media sites 40 32% 26 24% 7 11 10% Local newspapers 5% Tip cards or fact sheets at place of employment or school 4 3% 6 5% Tip cards or fact sheets distributed by law enforcement officers, family, friends, community organizations, 1% volunteers on the street or businesses 1 .08% 2 Street posters or signs while 50 40% 62 driving/walking 58% Newsletters distributed by community organizations/places of worship 1 .08% 6 5% Emails from friends, family, community 9 organizations or businesses 7% 5 4% Emails from employer or school 7 5% 6 5%

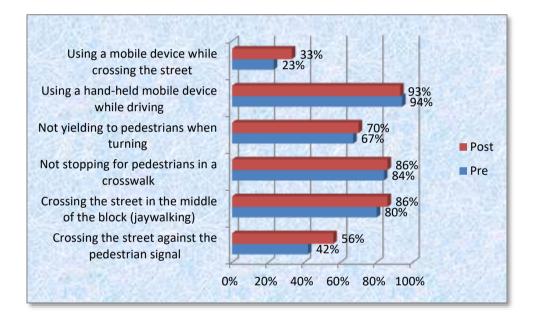
IN THE PAST **30** DAYS, HAVE YOU SEEN OR RECEIVED INFORMATION ABOUT PEDESTRIAN SAFETY FROM ANY OF THE FOLLOWING SOURCES?



The majority of pre- and post- campaign respondents saw or received information on pedestrian safety through street signs/posters and social media. The percentage of respondents getting safety information from street signs increased from 40 percent to 58 percent.

	Pre-Car (125 res	npaign ponses)	Post-Campaign (106 responses)	
	#	%	#	%
Crossing the street in the middle of the block	100	80%	91	86%
Crossing the street against the pedestrian signal	52	42%	59	56%
Using a mobile device while crossing the street	29	23%	35	33%
Not stopping for pedestrians in a crosswalk	105	84%	91	86%
Using a hand-held mobile device while driving	117	94%	99	93%
Not yielding to pedestrians when turning	84	67%	74	70%

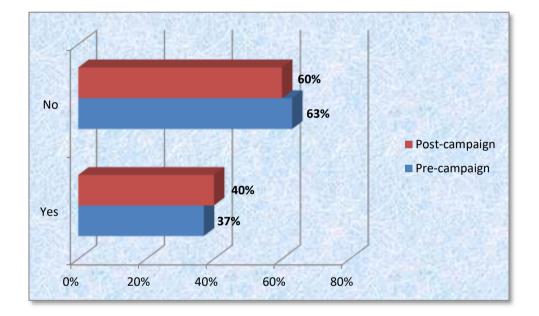
CAN YOU RECEIVE A TICKET FOR THE FOLLOWING?



The majority of pre- and post-campaign survey respondents knew that crossing mid-block, not stopping for pedestrians in a crosswalk, and using a hand-held device while driving were ticketable offenses. Respondents were less certain whether crossing the street against the signal and not yielding to pedestrians when turning were ticketable offenses. After the campaign, respondent's knowledge of pedestrian safety laws increased. A greater percentage of post-campaign respondents knew that they could be ticketed for crossing the street against the signal and not yielding to pedestrians.

HAVE YOU RECENTLY READ, SEEN OR HEARD ABOUT POLICE EFFORT TO ENFORCE PEDESTRIAN SAFETY LAWS IN MANVILLE?

	Pre-Car (125 res		Post-Campaign (106 responses)	
Police Enforcement:	#	%	#	%
No	79	63%	64	60%
Yes	46	37%	42	40%

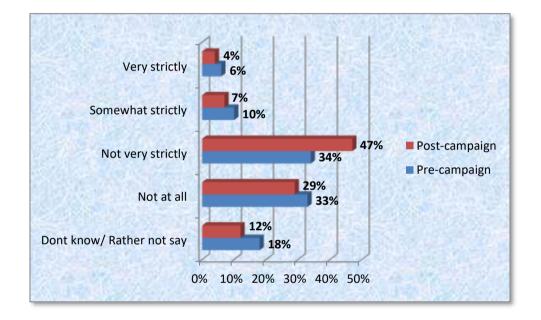


37 percent of pre campaign respondents and 40 percent of post-campaign respondents said they were aware of Manville Police efforts to enforce pedestrian safety.



HOW STRICTLY DO YOU THINK POLICE IN MANVILLE ENFORCE PEDESTRIAN SAFETY LAWS, SUCH AS JAYWALKING OR CROSSING AGAINST THE SIGNAL?

		Pre-Campaign (125 responses)		mpaign ponses)
Police Enforcement:	#	%	#	%
Very strictly	8	6%	4	4%
Somewhat strictly	12	10%	8	7%
Not very strictly	42	34%	50	47%
Not at all	41	33%	31	29%
Don't know/Rather not say	22	18%	13	12%

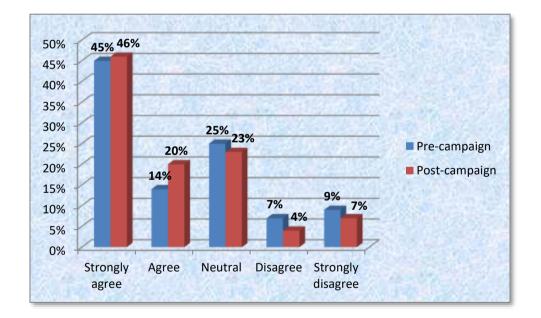


The majority of pre- and post-campaign survey respondents said they think that pedestrian safety laws are either not very strictly enforced or not enforced at all in Manville. The number of campaign respondents who believed pedestrian safety laws were not very strictly enforced increased from 34 percent in the pre-campaign to 47 percent in the post campaign. However, the post-campaign survey showed that the number of respondents who believed the laws were not enforced at all decreased from 33 percent to 29 percent.

Respondents were asked if they agreed or disagreed with statements made about distracted driving, drivers and pedestrians observing traffic laws, and speeding. The majority of pre- and post-campaign survey respondents strongly agreed that drivers and pedestrians do not obey traffic laws in Manville. However, a surprising number of respondents indicated they were neutral which is in contrast to the answers given to the question on unsafe driver and pedestrian observed behaviors on page 8.

DISTRACTED DRIVING IS A PROBLEM IN MANVILLE:

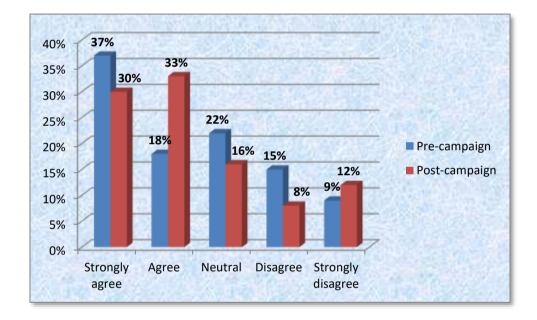
	Pre-Campaign (125 responses)		Post-Campaign (106 responses)	
	#	%	#	%
Strongly agree	56	45%	49	46%
Agree	18	14%	21	20%
Neutral	31	25%	25	23%
Disagree	9	7%	4	4%
Strongly disagree	11	9%	7	7%



The percentage of respondents who said distracted driving was a serious problem in Manville increased slightly by 1 percentage point following the Street Smart campaign.

	Pre-Campaign (125 responses)		Post-Campaign (106 responses)	
	#	%	#	%
Strongly agree	46	37%	32	30%
Agree	22	18%	35	33%
Neutral	27	22%	17	16%
Disagree	19	15%	9	8%
Strongly disagree	11	9%	13	12%

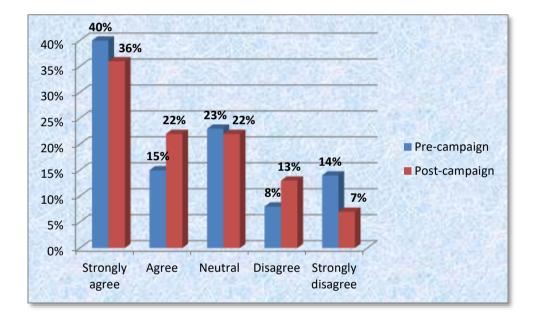
PEDESTRIANS DISOBEYING TRAFFIC RULES IS A PROBLEM:



37 percent of pre-campaign respondents said they strongly agreed that pedestrians do not obey traffic laws in Manville. This number declined to 30 percent in the post-campaign survey responses. However, the number of respondents who agreed that pedestrians do not obey traffic laws increased from 18 percent before the campaign to 33 percent in the post-campaign survey responses.

	Pre-Campaign (125 responses)		Post-Campaign (106 responses)	
	#	%	#	%
Strongly agree	50	40%	38	36%
Agree	19	15%	23	22%
Neutral	29	23%	23	22%
Disagree	10	8%	14	13%
Strongly disagree	17	14%	8	7%

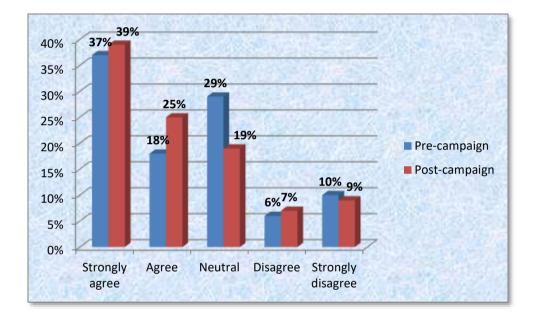
DRIVERS NOT YIELDING TO PEDESTRIANS IN THE CROSSWALK IS A PROBLEM IN MANVILLE:



40 percent of pre-campaign respondents strongly agreed that drivers do not yield to pedestrians in the crosswalk in Manville. This number dropped to 36 percent in the post-campaign survey responses.

SPEEDING IS A PROBLEM IN MANVILLE:

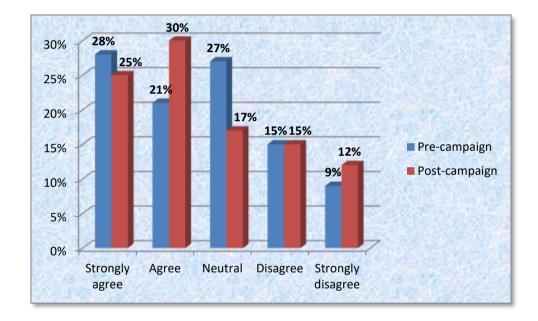
	Pre-Campaign (125 responses)		Post-Campaign (106 responses)	
	#	%	#	%
Strongly agree	46	37%	41	39%
Agree	23	18%	27	25%
Neutral	36	29%	20	19%
Disagree	8	6%	8	7%
Strongly disagree	12	10%	10	9%



37 percent of pre-campaign survey respondents strongly agreed that speeding is a problem in Manville. This number increased slightly to 39 percent in the post campaign responses. Fewer respondents were neutral on this topic in the post-campaign survey. The number of respondents who were neutral on this issue declined from 29 percent to 19 percent between the pre- and post-surveys. This demonstrates that the campaign helped increase awareness of this issue.

	Pre-Campaign (125 responses)		Post-Campaign (106 responses)	
	#	%	#	%
Strongly agree	35	28%	27	25%
Agree	26	21%	32	30%
Neutral	34	27%	18	17%
Disagree	19	15%	16	15%
Strongly disagree	11	9%	13	12%

BICYCLISTS NOT OBEYING TRAFFIC LAWS IS A PROBLEM IN MANVILLE:



28 percent of pre-campaign respondents strongly agreed that cyclists do not obey traffic laws in Manville. This number declined slightly to 25 percent in the post-campaign surveys. Another 21 percent of pre-campaign respondents agreed that cyclists do not obey traffic laws. This number increased to 30 percent following the campaign. As with the other questions, a surprising number of respondents were neutral – 27 percent of pre-campaign respondents compared to 17 percent of respondents in the post-campaign survey. This demonstrates that the campaign helped increase awareness of this issue.

RECOMMENDATIONS

- Based on the pre- and post- campaign survey results, distracted driving was the most serious problem in the community, followed by drivers not yielding to pedestrians. This creates an opportunity for increased driver education and enforcement at both intersections and in other high traffic / high pedestrian areas along Main Street.
- The number of cyclists not riding with the flow of traffic increased from the pre- to postcampaign observations. This presents an opportunity for RideWise to provide safe cycling education within the community.
- Based on the pre- and post-campaign intersection observations, enforcement of mid-block crossings, deviating from the crosswalks and crossing against the signal activity among pedestrians should continue at both intersections.
- The survey results showed no positive increase in awareness of police enforcement. One suggestion is to re-evaluate the location, time, or method of enforcement efforts to increase exposure and awareness among individuals.
- All survey respondents understood when to cross the street at a signalized intersections, which
 is in contrast to the behavior observed during the pre- and post-campaign observations.
 Knowing the law does not automatically lead to correct pedestrian behavior. This presents
 opportunities for RideWise to provide additional pedestrian safety education and enforcement
 activities in the community and in the schools.
- Manville Borough is encouraged to consider allowing RideWise to conduct another Street Smart campaign in spring or summer of 2019.

CONCLUSION

Street Smart Manville was a collaborative effort between RideWise, the Manville Borough and the Manville Police. The campaign resulted in a significant increase in awareness of the Street Smart message, increased education and enforcement interactions, and an emphasis on pedestrian safety throughout the community. A reduction in the prevalence of some non-compliant behavior by drivers and pedestrians was seen during the intersection observations and in the surveys. It is recommended that ongoing pedestrian, driver and cyclist education and enforcement be ongoing along Main Street, in the community, and in the schools to address pedestrian safety concerns in Manville Borough.