

Bicycle and Pedestrian Safety, Education, and Enforcement Program: 2016 Summary

NCDOT Research Project No. RP 2016-41

FINAL REPORT

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Executive Summary

Overview

The Watch for Me NC program aims to empower communities to address pedestrian and bicycle crashes by supporting: (1) dissemination of safety messages through various outreach and education strategies; and (2) high-visibility enforcement of pedestrian, bicyclist, and motorist laws. The program began as a regional pilot test in 2012 and now has partner-driven efforts across the State. To learn more about the program and its history, visit: http://watchformenc.org/. In 2016, twenty-two prior communities and three new communities were selected to participate. Many communities included one or more universities implementing the Watch for Me NC program at the campus level. The UNC Highway Safety Research Center (HSRC) supported NCDOT in program development, delivery, and evaluation. HSRC monitored program delivery by participating communities by collecting information through (1) webbased reporting forms, (2) community status reports, and (3) interviews with program staff.

Technical Assistance and Training

Participating communities received support and assistance from HSRC to implement their local programs. Support services included access to a partner listserv and contact list, direct technical assistance, a website of partner-specific resources, and facilitated meetings to discuss how to effectively deliver educational and enforcement components of the program. Meetings covered topics including: (1) Partners and Strategies to Make an Impact; (2) The Role of Law Enforcement and Strategies for Coordination; and (3) Successes and Challenges to Date, as well as a wrap-up meeting.

Additionally, HSRC offered nine full or half-day training courses to participating law enforcement agencies in summer 2016. Brian Massengill, a sergeant with the Durham Police Department, served as lead course instructor. The courses prepared officers to perform pedestrian and bicycle safety operations as part of the Watch for Me NC program. They involved classroom education on relevant laws and best practices in conducting enforcement, as well as field exercises in conducting targeted operations aimed at improving driver yielding at crosswalks. In total, 126 officers from 37 agencies participated in the trainings.

Program Delivery

Paid Media

Media was a key element in distributing pedestrian and bicycle safety messages to the general public. About \$350,000 was spent on media in at least 20 media markets across the state. Purchased media included Pandora radio ads (which received 20,403 clicks), 80 sidewalk stencils, two mobile billboards, more than 40 traditional and digital billboards, and external/internal bus ads placed in 12 bus systems across the state. The media agency estimated that at least 56.2 million gross impressions—a measure of how many times an ad was seen—were delivered via purchased media. Additional funds were used to purchase print materials, with tens of thousands of rack cards, posters, banners, bumper stickers, and other safety materials delivered to and disseminated by community partners through local events and public engagement. Several communities also developed and purchased their own unique materials, including video PSAs, reflective bags, water bill inserts, t-shirts, and other supplemental items.

Local Outreach and Earned Media

Participating communities performed extensive outreach, including distributing print materials and engaging with students, local businesses, community groups, and the general public at more than 115 local events. These included events such as 1) university and school open houses or student

orientations, 2) National Night Out, 3) community meetings, and 4) festivals, fairs, and farmers markets. Partner communities also engaged with the media as a key strategy to help amplify the message to a broader audience. At least eight press releases were distributed, and more than 34 news stories (print, TV, and radio) covered local pedestrian and bicycle safety efforts.

Law Enforcement Operations

From January 2016 to December 2016, 10 municipal police agencies and two university police departments reported conducting more than 79 operations targeting enforcement of pedestrian and/or bicycle-related laws. The operations resulted in more than 1,064 warnings, 130 citations, and nearly 1,600 direct contacts made with the public. These efforts involved 200+ officers spending 100+ hours in total, not including time spent doing routine enforcement patrols that incorporated pedestrian and bicycle safety surveillance. In large part, officers focused on issuing warnings to try to engage the public and raise awareness of the laws. Partners reported many positive outcomes, including improved road user awareness and behaviors, positive community response, and traffic citations upheld consistently in court. Similar to 2015, many communities took a "good ticket" approach, often partnering with local businesses to deliver "caught being good" tickets that provided local business discounts/free food to serve as positive reinforcement of safe behaviors observed.

Program Outcomes

HSRC conducted interviews with a subset of the twenty-five Watch for Me NC community partners in December 2016. From this interview process emerged five key lessons learned regarding the communities' experiences with participating in the Watch for Me NC program: (1) All partners agreed partnerships were key to effectively implementing the Watch for Me NC program in their communities; (2) They reported significant changes in their agencies' "culture" in response to their communities' participation in Watch for Me NC; (3) Partners shared that Watch for Me NC concepts were being incorporated into plans, programs, and enforcement procedures; (4) However, program implementation often involved such challenges as devoting sufficient staff time and resources, ensuring partner commitment, and partner's not fully prioritizing pedestrian and bicycle safety; (5) Thus, partners recommended future Watch for Me NC participants form coalitions involving agencies with overlapping goals, and institutionalizing Watch for Me NC activities through policies.

Conclusion

Overall, the 2016 program involved significant participation by partners in diverse communities across NC. The measures used to evaluate the program provided evidence of opportunities and barriers to program delivery. As the program continues to add communities across the state, it may be necessary to continue evolving both the content and the format of the technical assistance delivery and the law enforcement training program. Similarly, the program evaluation approach may need to be adapted to accommodate the "scaling up" of the program across the state. It is recommended that future evaluations make use of a combination of measures—including qualitative data, survey data, field observations, and crash data, if possible—and use sophisticated techniques to account for additional factors in order to provide valid estimates of both short and longer-term program impacts.

Background and Project Goals

According to the latest data available from the National Highway Traffic Safety Administration,^{1,2} in 2015, 5376 pedestrians and 818 bicyclists were killed in motor vehicle crashes in the US. An additional 70,000 pedestrians and 45,000 bicyclists were estimated to have been injured. In North Carolina, pedestrians and bicyclists represent approximately 15% of all motor vehicle crash fatalities, which is very similar to national proportions.

Pedestrian and bicycle safety is an important issue for the health, safety, and mobility of North Carolinians. Statewide, in 2014 approximately 3,000 pedestrians and 850 bicyclists were hit by cars, with a large majority of these people sustaining injuries.³

Watch for Me NC was developed and subsequently pilot tested in the Triangle area. After a two year pilot program, Watch for Me NC opened up to the entire state in 2014 and has been expanded upon each year since. In 2016, the goal of this effort was to assist partner communities across North Carolina in successfully implementing the Watch for Me NC program, and to monitor program delivery and measure outcomes to develop recommendations for future program expansion or improvements. To accomplish this goal, the project team from the University of North Carolina (UNC) Highway Safety Research Center (HSRC) sought to:

- 1. Recruit local partners with interest and ability to participate in the Watch for Me NC program
- 2. Provide technical assistance and training to support local and statewide program implementation
- 3. Coordinate with local agencies and NCDOT to collect, manage, and analyze data related to the program delivery
- 4. Evaluate the program delivery and present findings and lessons learned

This report documents methods and results related to the above activities.

2016 Partner Communities

HSRC coordinated with NCDOT to implement an applicant selection process, which began in early 2016 with a call for applicants and an informational webinar to describe the process, benefits, and requirements of participation. Applicants were screened to ensure they met basic eligibility requirements and then applications were reviewed by a selection committee made up of

¹ National Highway Traffic Safety Administration. (2017a). *Traffic Safety Facts 2015 Data, Pedestrians* (Publication No. DOT HS 812375). National Center for Statistics and Analysis, National Highway Traffic Safety Administration, Washington, DC, 2017. Retrieved from https://crashstats.nhtsa.dot.gov/Api/Public/Publication/812375.

² National Highway Traffic Safety Administration. (2017b). *Traffic Safety Facts 2015 Data, Bicycles and Other Cyclists* (Publication No. DOT HS 812382). National Center for Statistics and Analysis, National Highway Traffic Safety Administration, Washington, DC, 2017. Retrieved from https://crashstats.nhtsa.dot.gov/Api/Public/Publication/812382.

³ North Carolina Department of Transportation (NCDOT). (n.d.). *North Carolina pedestrian and bicycle crash data tool.* Retrieved from http://www.pedbikeinfo.org/pbcat/index.cfm.

representatives from HSRC, NCDOT, and the Watch for Me NC Steering Committee members. Applications were rated based on:

- Understanding: Does the agency demonstrate a clear understanding of the Watch for Me NC program, including goals, partner responsibilities, timeline, and expected activities?
- Capacity: Does the agency demonstrate the capacity to participate in the program (including supporting both education/outreach and enforcement activities)?
- Focus/Approach: Does the agency have a clear focus on reaching the K-8 school population and a realistic and effective approach?

The selection committee also took crash history and geographic representation of applicants into consideration. A total of twenty-five communities were selected, including three new communities and twenty-two returning partners (see Table 1 and Figure 1). Many communities included one or more universities that implemented the Watch for Me NC program at the campus level. Overall, there was considerable variation in community size, region, and lead agencies (Table 1).

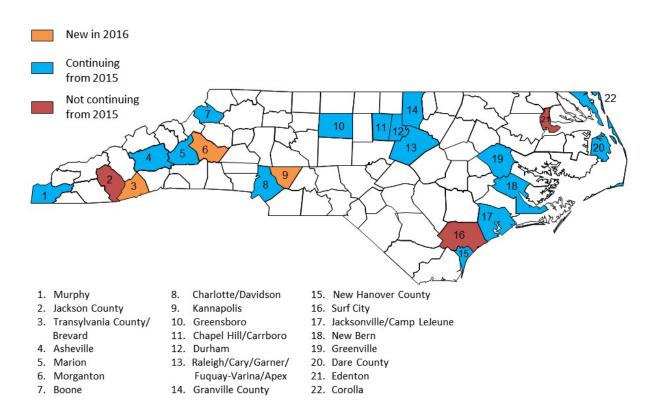


Figure 1. 2016 Watch for Me NC Partner Communities.

Table 1. 2016 Partner Communities and Lead Agency.

| | | ů , |
|-------------------------|-------------------|--------------------------------------|
| Community (County) | County Population | Primary Point of Contact |
| Apex (Wake) | 976,019 | Apex Police Dept |
| Asheville (Buncombe) | 247,336 | Asheville Planning Dept |
| Boone (Watauga) | 52,240 | Boone Public Works |
| Carrboro (Orange) | 138,644 | Carrboro Planning Dept |
| Cary (Wake) | 976,019 | Cary Police Dept |
| Chapel Hill (Orange) | 138,644 | Chapel Hill Police Dept |
| Charlotte (Mecklenburg) | 990,288 | Charlotte Planning Dept |
| Corolla (Currituck) | 24,492 | Corolla Fire and Rescue |
| Dare County | 33,920 | Kill Devil Hills Police Dept |
| Davidson (Mecklenburg) | 990,288 | Davidson Police Dept |
| Durham (Durham) | 288,817 | Durham Planning Dept |
| Fuquay-Varina (Wake) | 976,019 | Fuquay-Varina Police Dept |
| Garner (Wake) | 976,019 | Garner Police Dept |
| Granville County | 58,109 | Granville County |
| Greensboro (Guilford) | 506,763 | Greensboro Planning Dept |
| Greenville (Pitt) | 173,798 | Greenville Police Dept |
| Jacksonville (Onslow) | 183,753 | Jacksonville Planning Dept |
| Kannapolis (Cabarrus) | 188,375 | Kannapolis Police Dept |
| Marion (McDowell) | 44,965 | City of Marion |
| Morganton (Burke) | 89,548 | Morganton Public Safety Dept |
| Murphy (Cherokee) | 27,444 | Murphy Police Dept |
| New Bern (Craven) | 104,450 | New Bern Police Dept |
| Raleigh (Wake) | 976,019 | Raleigh Planning Dept |
| Transylvania County | 32,928 | Transylvania County Planning Dept |
| New Hanover County | 213,091 | Wilmington Metropolitan Planning Org |

2016 Technical Assistance and Partner Training

Technical Assistance

HSRC provided technical assistance to Watch for Me NC Partners and NCDOT. To guide and support the partners' campaign implementation, HSRC maintained a listserv just for partners; responded to questions from individual agencies; planned and facilitated web/phone meetings; and maintained a web page for partner-specific resources. The intent of the listserv was to foster information sharing among partners and provide an efficient way for HSRC to answer questions and share announcements and information.

Much of HSRC's technical assistance occurred during a kickoff meeting and three conference calls/webinars with Watch for Me NC partners. The meeting time always included a combination of presentation about a topic critical to campaign implementation and report out from each partner about current activities, successes, and challenges. Content-rich presentations served as the delivery mechanism for the technical assistance resources proposed in the original scope of work. Major topics addressed during the meetings included:

- April 20: Watch for Me NC Pedestrian and Bicycle Safety Program 2016 Kickoff
- July 1: Partners and Strategies to Make an Impact
- September 22: The Role of Law Enforcement and Strategies for Coordination
- December 20: 2016 Wrap Up

HSRC also maintained a resource page for partners that included archived recordings and notes of all meetings as well as contact lists, example enforcement operations plans, law enforcement data collection forms, public education resources (with an emphasis on supporting inclusion of K – 8 schools in Watch for Me NC), and a media toolkit.

Law Enforcement Training and Support

Training was provided to 126 officers from 37 agencies from May to July 2016 to prepare them for performing pedestrian and bicycle safety operations as part of the Watch for Me NC campaign. Brian Massengill, a sergeant with the Durham Police Department, was sub-contracted to lead the one-day courses. The courses involved classroom education regarding relevant North Carolina laws and best practices in conducting enforcement, as well as field exercises in conducting targeted operations aimed at improving driver yielding at crosswalks. Trainings also included tips on distributing materials, hosting events, making presentations, engaging the media, and working with schools and universities.

In addition to receiving training, officers received copies of the rack card to hand out during routine or targeted enforcement operations, as well as a template operations plan to help them coordinate and perform consistent and safe operations. Sandwich boards and warning ticketbooks purchased by NCDOT, similar to previous years, were also provided as a way to support law enforcement operations. Finally, officers received bicycle light sets—headlight and taillight—and light-up bracelets to give to local residents when observed walking or bicycling at night without a light as a means of positive reinforcement or in lieu of a citation (see images in Table 4).



Figure 2. Watch for Me NC law enforcement training.

2016 Program Delivery

Program Delivery Metrics

To comprehensively evaluate the delivery of the Watch for Me NC program across the state, the project team examined multiple measures, including media impact measures; website usage statistics; program implementation records; and self-reports by program partners. To collect such information, the project team developed web-based surveys and distributed these to community partners to help track and document activities. Data was regularly requested from partner groups during the program through direct emails, calls, and in-person meetings. To supplement data collected through surveys, HSRC conducted semi-structured interviews with the Watch for Me NC community partners in December 2016. See Table 2 for a summary of the program delivery measures and data sources used.

Table 2. Key 2016 Watch for Me NC program delivery measures.

| Domain | Program Delivery Measure | Data Source and |
|---------------------------------------|---|---|
| | | Timeline |
| Purchased Media | Number of print materials produced and disseminated by NCDOT and duration of exposure time Total cost of all printed materials and advertising space Number of times PSAs were aired on a set number of stations, population reach, frequency, number of impressions, and gross rating points | Trone Brand Energy report provided in September 2016 |
| Earned Media | Press release dates Media coverage source and publication date Media coverage type, length, and slant Number of impressions (e.g., media circulation) per media coverage | Partner surveys, LexisNexis, and GoogleAlerts; surveys sent in Sept and Nov 2016; other sources regularly monitored |
| Website Usage | Website visits Unique website visitors Page views % new vs. returning visitors Visit frequency and duration | Google Analytics; data collected continuously |
| Law Enforcement Activities | Count of safety operations run by agency Count and type of warnings and citations administered per operation Count of enforcement officer hours spent per operation, by agency Count of safety materials disseminated, by agency | Reported by agencies; regular requests made via listserv and calls to share data |
| Community Engagement Activities | List of partner agencies Brief description of community engagement strategies used by partner agencies, including type of event, population reached, frequency, staff involvement, etc. | Partner surveys sent in September and November 2016 |

The findings regarding the program delivery are presented in the sections below.

Program Delivery Summary

Purchased Media

Purchased media includes radio ads, printed materials, and outdoor and indoor advertising space purchased. The purpose of this media was to deliver specific behavioral messages regarding pedestrian and bicycle safety to the general public in order to raise awareness of safety concerns and encourage road users to drive, bike, and walk more safely. Messages were disseminated through a variety of outlets, depending on the format of the media.

NCDOT and its media purchasing contractor, Trone Brand Energy, Inc., provided information regarding paid media contracting and printing services used from May to September 2016. A total of \$350,000 was

spent on purchased media, including Pandora radio spots and outdoor advertising (e.g., transit ads, sidewalk stencils, and mobile and traditional billboards). Additional funds were spent to cover the costs of printing materials (see details in Table 4). Trone estimated that in total, 56,220,544 gross impressions were delivered via rated Pandora radio, billboards, sidewalk stencils, and transit advertisements. Gross impressions—a measure of how many times an ad was seen—are a commonly used metric to describe the intensity of an advertising campaign. This

It was estimated that Watch for Me NC ads were seen more than 56 million times across the state in the peak three months of the campaign.

figure does not include potential impressions from the print materials. A summary of the radio and outdoor media purchased, including the amounts, locations distributed, and timeframe of the ad placement is provided in the sections below.

Radio

Fifteen-second Pandora radio ads with safety messages aimed at drivers were aired in nearly all media markets surrounding partner communities resulting in almost 9 million impressions. The spots aired on Pandora (see Figure 3) between May 23 and September 18. Table 3 provides various Pandora radio media indicators for each of the three Pandora delivery methods.

Table 3. Pandora Media Indicators (Data Courtesy of Trone).

| Delivery Method | Impressions | Clicks | Click Through Rate |
|-----------------|-------------|--------|--------------------|
| Audio | 6,905,156 | 6,776 | 0.26% |
| Display | 897,725 | 5,127 | .57% |
| Mobile | 994,507 | 8,500 | 0.85% |





Figure 3. Ads were featured on Pandora radio, available on home computers and mobile devices.

Traditional Billboards

More than 40 traditional billboard ads ran in partner communities for several weeks (Figure 4). Billboard installation in Wilmington and New Bern coincided with the Memorial Day holiday, and the statewide campaign started in late June. The goal of the billboards was to reach drivers coming into a community, tourists in particular, to send a message that yielding to pedestrians and driving carefully around bicyclists is a normative behavior. These billboards generated over 10.8 million impressions each month.







Figure 4. Ads were placed on traditional and digital billboards across the state.

Mobile Billboards

Mobile billboards (see Figure 5) were used in Dare County to increase reach among summer beach goers. This method was selected due to the lack of traditional billboards in the area. Two trucks ran with different designs, delivering approximately 70,000 impressions per month.





Figure 5. Mobile Billboards Were Used in Regions Where Traditional Billboards Were Unavailable.

Sidewalk Stencils

The program increased its use of sidewalk stencils (See Figure 6), which use a pressure washer to imprint safety messages onto sidewalks and were first introduced in the 2015 program year. The stencils, which can last up to one year, were strategically placed at key intersections and high traffic areas. A total of 80 stencils were installed in eight communities – Boone, Brevard/Transylvania County, Corolla, Dare County, Kannapolis, Morganton, New Bern, and Wilmington. The stencils provided an estimated 10,000 impressions per application site for a total of 800,000 impressions.





Figure 6. Sidewalk Stencils Offered Safety Reminders to Pedestrians.

Transit Ads

Transit ads (see Figures 7 and 8) were placed on the interiors and exteriors of buses in 12 different transit systems, depending on the space available. Transit advertisements resulted in more than 4.6 million impressions per month. This strategy originated in the pilot program, where a pedestrian crash analysis identified a strong spatial association between high pedestrian crash areas and high-use transit routes. Bus vendors estimate that 90% of its audience is "exposed" to transit advertising each month. Most ads ran from Mid-May to Mid-September, but a few transit agencies left ads on for the duration of the year.







Figure 7. Internal Transit Ads Focused on Pedestrian and Bicycle Safety Tips.





Figure 8. External Transit Ads.

Print Materials and Giveaways

Print materials and other giveaways were provided to partner communities for local distribution (see Table 4). More on how communities distributed Watch for Me NC safety messages and materials is described in the "Community Engagement Efforts" section. Additionally, NCDOT sent large quantities of

print materials to several statewide agencies and organizations for distribution through their networks. These included the Division of Motor Vehicles (DMV), State Highway Patrol (SHP), Active Routes to School (ARTS) coordinators, the Safe Kids North Carolina coalition, and each of the 14 NCDOT division offices.

| 7 | Table 4. Summary of Purchas | sed Media Campaign Materials. |
|---|---|---|
| Item Description | Distribution | Example |
| Bumper Stickers Two standard-size bumper stickers with pedestrian and bicycle safety messages aimed at drivers. | 100,000 of each pedestrian and bicycle bumper sticker were provided to the partner communities and statewide partners to distribute during their campaigns. | I brake for people. I look for bikes. |
| Brochure/Rack Card Two-sided 3.75 inch by 8.5 inch document with laws and safety tips aimed at drivers, pedestrians, and bicyclists. | 200,000 rack cards were printed in English and 20,000 were printed in Spanish. These were provided to all partners and law enforcement agencies and statewide partners for distribution through libraries, community centers, local businesses, and direct contact. | SAFETY IS A SHARED RESPONSIBILITY When you're driving: Yield to people in crosswalks. Before making a turn, be sure the path is clear of people walking. Look behind your vehicle for people before backing up. Keep an eye out for people walking at night. When you're walking: Look for cars in all directions—including those turning—before crossing the street. Obey all pedestrian traffic signals. At night, walk in well-lit areas, carry a flashlight, or wear something reflective to be more visible. Watch for cars backing up in parking lots. Cross the street where you have the best view of traffic. At bus stops, cross behind the bus or at the nearest crosswalk. Always walk on the sidewalk; if there is no sidewalk, walk facing traffic and as far from the road as you can. |

Item Description Banners 3 ft by 6 ft or 3 ft by 8 ft outdoor banners with

messages aimed at

150 of each pedestrian and bicycle safety banners were distributed to the community partners.

Distribution



Posters

drivers.

11 by 17 inch posters with a series of four messages aimed at pedestrians and bicyclists. 20,000 English language posters and 4,000 Spanish language posters were sent to the communities and statewide partners for distribution in businesses, community centers, libraries, campuses, and other public locations throughout participating communities.



Bike Lights

Front and tail lights with the Watch for Me NC logo, intended for bicyclists.

7,000 bike light sets were distributed primarily by police officers to bicyclists observed riding without lights during the Fall campaign months; these were also distributed through community events.



| Item Description | Distribution | Example |
|---|---|--------------------|
| Bracelets | 7,000 bracelets were distributed at community | |
| Bracelets/arm or leg straps with LED lights and the Watch for Me NC logo. | events during the Fall campaign months by the partners. | WATCH FOR ME NC |

Earned Media

Earned media consisted of TV, radio, and print news coverage of the program that was not purchased. The project team began tracking news articles in January 2016 and routinely searched Lexis-Nexis archives and Google News alerts throughout the year. The team also gathered information on media engagement through partner surveys and interviews. During the time period, NCDOT and program partners released several press releases and safety announcements. The releases ranged from announcing a community's participation in the campaign, to safety announcements, to warnings about upcoming enforcement efforts. At least four communities created Public Service Announcements (PSAs) and five communities used social media, such as Facebook and Twitter, to share campaign message or event information. Fuquay-Varina also posted Watch for Me NC information on NextDoor, a neighborhood-based social media website.

The campaign saw continued news coverage throughout the year. In 2016, the campaign generated

more than 34 stories in media outlets across the state. While several news stories focused on areas that joined the campaign in 2016, the majority of coverage came from returning partner communities. Several communities that participated in the Watch for Me NC program in years past were able to creatively promote media stories about the campaign through new efforts. For example, Boone advertised a bike rodeo on a locally produced podcast and representatives from Charlotte's Department of Transportation discussed Watch for Me NC efforts on a

In 2016, the Watch for Me NC campaign generated more than 34 stories in local news outlets and its website was viewed nearly 39,000 times.

<u>local AARP podcast</u>. As in previous years, news and editorial coverage remained largely positive toward the effort. Newspaper articles and television reports primarily focused on crash statistics and road fatalities and how the campaign is working to reduce those figures through better education of drivers, pedestrians, and bicyclists, as well as through enhanced enforcement of existing pedestrian and bicycle safety laws.

Website Usage

To distribute information to partner communities, the public, and the media, the team continued to develop and maintain the Watch for Me NC website, http://www.watchformenc.org (see Figure 9). The site serves as a central information point for the campaign and a repository for campaign materials and media coverage.



Figure 9. Watch for Me NC Project Website Home Page.

Data regarding the Watch for Me NC website usage during the 2015 program year were extracted from Google Analytics. From January 1, 2016 to December 31, 2016, 18,466 unique visitors logged onto the site 21,516 times and viewed 38,987 pages. This is a significant increase in web users from 2015, when 2,824 unique visitors logged onto the site, but actual page views were down from 2015, where the site was visited 32,322 times and 50,551 pages were viewed.

Most of the site's web traffic, 77%, came from individuals directly typing www.watchformenc.org into their web browser or searching for Watch for Me NC in Google or another search browser. Another 11% were referred from NCDOT's website. The most commonly visited sub-pages were the About (3,289 page views), Safety Resources (1,650 page views), Campaign Materials (1,617 page views), and Media (1,144 page views).

Figure 12 shows the daily trends in web traffic monitored in 2016. Clearly, the bulk of the traffic to the site came when the campaign launched in July, a sign that individuals and members of the media were turning to the website to learn more about the campaign and pedestrian and bicycle safety. Site usage in 2016 peaked in July and August, when paid ads began rolling out across many communities and several news stories covered the program as part of back to school efforts.

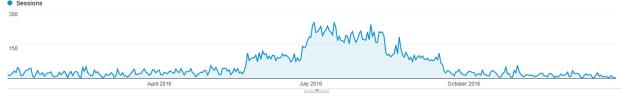


Figure 10. Web Use Statistics in 2016.

Community Engagement Efforts

The Watch for Me NC community partners (n=23) that responded to the monthly surveys varied widely in the amount of time and effort that they reported was devoted to the campaign and community engagement. The average number of hours devoted to Watch for Me NC per month by the lead program

manager was sixteen, the minimum was four (Creedmoor, Durham, Garner), and the maximum was 80 hours (Wilmington PD). Community partners that have been involved in the program previously, such as Durham, may have required less time to participate due to pre-existing relationships and a more streamlined process in place. Furthermore, most communities dedicated more time to carrying out the Watch for Me NC program during summer months (May through September) than in Fall and early Winter (September through mid-December).

In general, most partners reported engaging directly with community members as well as with larger organizations. Nearly all partners engaged individuals and organizations with Watch for Me NC messaging on at least one occasion per month. One partner did not report any engagement with individuals or organizations but at least one partner (Charlotte) engaged individuals and organizations on ten or more occasions per month. On average, partners interacted with individuals and organizations regarding Watch for Me NC an average of three times per month.

Nineteen of the twenty municipal survey respondents and all three of the university-based respondents distributed messages and engaged the community in 2016. Tables 5 and 6 present a summary of the activities performed by Watch for Me NC partners (as of December 2016) and what types of materials were distributed. The total sample size of 23 reflects the participating municipalities and universities that completed monthly progress reports pertaining to activities carried out between May and December 2016.

Table 5. Reported Community Outreach Efforts.

| rable 5: Reported community outreath Entres. | | | | | |
|--|---------|-------|--|--|--|
| Community outreach efforts conducted since August (N = 23 responses) | Percent | Count | | | |
| Directly engaged individuals and organizations with Watch for Me NC messaging | 95.7% | 22 | | | |
| Used other materials (e.g., from NHTSA, Safe Kids, etc.) | 26.1% | 6 | | | |
| Created unique materials that feature Watch for Me NC logos, facts, statistics, etc. | 26.1% | 6 | | | |

Table 6. Material Distribution and Use.

| Table of Material Profit and Occ. | | | | | | |
|--|---------|-------|--|--|--|--|
| What type of materials did you distribute or use? (N = 23 responses) | Percent | Count | | | | |
| Rack Cards/Brochures | 87.0% | 20 | | | | |
| Bumper stickers | 73.9% | 17 | | | | |
| Bike lights | 78.3% | 18 | | | | |
| Banners | 69.6% | 16 | | | | |
| Bracelets | 47.8% | 11 | | | | |

Based on survey responses, at least 115 local events were attended or hosted by Watch for Me NC partners from May through mid-December 2016 in partner communities, which represents an average of five events per community. Many communities worked to engage the media at these events as well; these efforts are described in the earned media section above. Events that presented opportunities to distribute safety messages typically included:

- University open houses or student orientations
- New employee orientations

- Crossing guard trainings
- Coffee with a Cop events
- National Night Out
- National Family Volunteer Day
- Bicycle/Pedestrian Advisory or Advocacy Group meetings
- Transportation planning public meetings
- School events ("Back to School" nights; walk or bike to school events)
- Bicycle rodeos, bicycle riding/etiquette classes
- Halloween-themed events
- Festivals, fairs, and farmers markets
- Distribution of materials at senior citizen centers, churches, YMCAs
- Driver's education classes
- Citizen academy meetings
- Distribution of materials at conventions, including the NC Bike Summit
- Neighborhood presentations

Additionally, materials were commonly distributed at city/town hall, local bike shops, bookstores, restaurants, university resident areas, and other campus locations. Materials were also distributed during police enforcement events, through faith-based groups (Figure 11), council meetings, and at Safe Kids/Safe Communities, MPO meetings, and transportation fairs.





Figure 11. Examples of Community Engagement

It is worth noting Boone, Carrboro, Charlotte, Marion, UNC-Wilmington, Greenville, and Cape Fear Community College created their own unique materials that featured Watch for Me NC logos, facts, statistics, etc., such as bags, PSA videos, letters, "good behavior tickets" (Figure 12), posters, and flyers.



Figure 12. Example of Additional Watch for Me NC Materials Created by Partners.

Law Enforcement Operations

Law enforcement activities were tracked through an online form completed by law enforcement agency staff (form available at www.watchformenc.org/reporting). From January to December 2016, 10 municipal police agencies and two university police departments reported conducting more than 79

operations targeting enforcement of pedestrian and/ or bicycle-related laws. These efforts involved 200+ officers spending 100+ hours in total, not including time spent doing routine enforcement patrols that incorporated pedestrian and bicycle safety surveillance. All efforts were performed without receiving any additional compensation from the Watch for Me NC program sponsor. The operations resulted in more than 1,064 warnings, 130 citations, and nearly 1,600 direct contacts made with the public (Table 7). Additionally, thousands of Watch for Me NC materials were distributed during these events including rack cards, bumper stickers, bike lights,

Watch for Me NC communities held more than 115 engagement events and 79 enforcement operations, directly reaching thousands of community members with safety messages in 2016.

and other materials. These figures are down just slightly from what was reported in 2015. Feedback from participants indicated that in 2016, responsibilities related to presidential and local campaign events and Hurricane Matthew may have drawn resources away from agencies as other priorities competed with pedestrian and bicycle safety issues.

Unlike previous years, enforcement operations took place not in a singular month but throughout the Fall campaign season, with some communities reporting year-round operations taking place. In large part, officers focused on issuing warnings to try to engage the public and raise awareness of the laws. Partners reported many positive outcomes, including improved road user awareness and behaviors, positive community response, and traffic citations upheld consistently in court. This year, many communities also took a "good ticket" approach, often partnering with local businesses to deliver "caught being good" tickets that held local business discounts/free food to serve as positive reinforcement of safe behaviors observed.

Table 7 provides a breakdown of the enforcement warnings and citations by partner agency. The citations and warnings covered a range of violations for all road users, including: failure to yield to pedestrians (when turning or going straight through a crossing), failure to abide by signal/stop controls, speeding, unsafe passing, agressive/reckless driving, alcohol-related offenses, failure to use crosswalk, and failure to use lights/reflectors at night.

While most partners were responsive to requests for information, certain communities had multiple police departments working across a region, or multiple units within the same department performing operations, and not all activities were closely-coordinated or planned in advance. It is possible that staff may have under-reported the true amount of enforcement activities taking place within their respective jurisdictions. Additionally, several partner groups reported no specific law enforcement operations at all. These communities may have focused more on educational outreach or lacked the staff to collect and provide the report forms to share their enforcement efforts.

Table 7. Enforcement Efforts by Partner Agency.

| Agency | Number | Driver | Driver | Ped | Ped | Bicyclist | Bicyclist | Other/ |
|--------------------|--------|----------|-----------|---------------|-----------|-----------|-----------|----------|
| Agency | | | | | | - | • | - |
| | of | Warnings | Citations | Warnings | Citations | Warnings | Citations | Total |
| | Events | | | | | | | Contacts |
| | | | U | niversities | | | | |
| UNCA | 36 | 13 | 0 | 39 | 0 | 6 | 0 | 59 |
| UNCW | 15 | 0 | 0 | 171 | 0 | 118 | 0 | 280 |
| | | | Mι | unicipalities | | | | |
| Carrboro | 2 | 6 | 5 | 0 | 0 | 0 | 0 | 11 |
| Charlotte- | | | | | | | | |
| Mecklenburg | 4 | 104 | 94 | 376 | 0 | 0 | 0 | 585 |
| Creedmoor | 9 | 30 | 7 | 0 | 0 | 0 | 0 | 248 |
| Dare County | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Durham | 3 | 3 | 2 | 99 | 0 | 0 | 0 | 132 |
| Fuquay Varina | 1 | 11 | 0 | 47 | 2 | 0 | 0 | 31 |
| Garner | 5 | 17 | 5 | 3 | 0 | 0 | 0 | 74 |
| Greenville | 1 | 1 | 15 | 0 | 0 | 0 | 0 | 16 |
| Kill Devil Hills | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| Wilmington | 1 | 0 | 0 | 10 | 0 | 10 | 0 | 160 |
| Grand Total | 79 | 185 | 128 | 745 | 2 | 134 | 0 | 1,596 |

In 2016, NCDOT provided agencies with a notepad of pre-printed warning fliers that the police departments could use to aid in expeditiously distributing warnings at enforcement operations (see Figure 15). This was based upon a model that the City of Greenville tested in 2014 and was well received by several agencies.



Figure 13. Pre-Written Warning Notepad.

2016 Program Outcomes

In 2016, evaluation resources did not allow for a quantitative evaluation (e.g., of observed behavior changes or self reports) using primary data collection, such as has been performed in prior years. Therefore, the emphasis of the evaluation this year was on qualitative outcomes. Table 8 provides a summary of the method used, and the following sections detail the method and results gleaned from partner interviews.

Table 8. 2016 Watch for Me NC Program Outcome Measures.

| Qualitative Outcome Measure | Data Source and Timeframe |
|--|------------------------------|
| Input on especially helpful partners | |
| • Change in policies, ordinances, or resolutions attributable to program | Phone interview with |
| • Change in enforcement agency's approach to ped/bike law enforcement | agency points of |
| • Coordination with Public Works or Engineering Departments to discuss | contact in December |
| safety issues with the physical environment | 2016 |
| Partner's approach to working with schools | |

To gather qualitative outcome data, HSRC conducted semi-structured interviews with eight Watch for Me NC community partners in December 2016. The purpose of the interviews was to draw out those elements of communities' Watch for Me NC campaigns that were difficult to capture using the partner survey or group "share meeting" format.

Based on the reports from partnering communities through the monthly surveys and exit interviews, HSRC gleaned the following outcomes and lessons learned regarding the communities' challenges, successes, and experiences associated with participation in the Watch for Me NC program. To see details regarding each individual community, read the 2016 Community Profiles at: http://www.watchformenc.org/about/partner-community-profiles/.

All partners agreed that partnerships helped to spread Watch for Me NC messaging and engage diverse populations about transportation safety. Watch for Me NC partners in Boone, at ECU, Greensboro, and Wilmington engaged with schools, Safe Kids coalitions, and universities to distribute program materials and engage the public on safe walking, bicycling, and driving behaviors. For example, UNC-Wilmington placed Watch for Me NC logos on a license plate affixed to a campus vehicle, and Cape Fear Community College attached Watch for Me NC messages to trash cans on campus. Watch for Me NC partners in Boone, Charlotte, and Greensboro worked with Active Routes to School Coordinators to get posters, arm bands, and bike lights into schools, as part of the approach to share safety messages with school administrators, caregivers, and children. Walk and Bike to School Day events provided opportunities to distribute materials and talk with residents in the community about Watch for Me NC. Planners in Durham and Transylvania County worked with local law enforcement to conduct crosswalk enforcement operations, often favoring warnings over citations. Other communities such as Transylvania County and Wilmington worked with local businesses, such as bicycle retailers to promote Watch for Me NC messages and to facilitate safety-related conversations between proprietors and patrons. Moreover, in places like Durham, Charlotte, Greensboro, and Corolla, the Bicycle and Pedestrian Advisory Commission, city planning and engineering departments, County health departments and hospital organizations helped Watch for Me NC partners with targeted population outreach (e.g., the Latino community in Charlotte) and engagement strategies (e.g., nurses talking with patients about road safety and County health departments conveying safe travel behavior messages to local health practitioners in Greensboro and Charlotte).

Several partners reported significant changes in their agencies' "culture" in response to their communities' participation in Watch for Me NC. For example, in Morganton, representatives shared that their police department's general approach to enforcement transitioned from one that targeted speeding on highways to one that more recently focused on speeding and failing to yield to pedestrians in downtown areas and school zones. Also in Morganton, the police department coordinated more with engineering staff, with one conversation leading to the installation of a crosswalk near the courthouse downtown. In Greensboro, MPO planners and local engineers started working on developing a common understanding of pedestrian and bicycle safety problems and collaboratively devising solutions. And in Wilmington, the MPO had recently started using regional crash data to assess where they and their partners might target their safety messaging and enforcement efforts, such as business corridors and residential areas favored by pedestrians and bicyclists.

In general, partners shared that Watch for Me NC concepts were being incorporated into plans, programs, and enforcement procedures. As in previous years, residents of partnering communities seemed to discuss pedestrian and bicyclist safety more often after having participated with Watch for Me NC. For example, in an October News and Observer op-ed, a Durham resident presented arguments

for why the city needed more sidewalks. In Charlotte, city staff have seen more Watch for Me NC bumper stickers and greater numbers of people walking and bicycling—though, they admit it is difficult to attribute potential "mode shift" to Watch for Me NC, as the city installed several pedestrian hybrid beacons during the course of the Watch for Me NC campaign. Further, in Greensboro, the MPO documented an increase in the number of complaints related to speeding and missing sidewalks. Otherwise, Watch for Me NC has been integrated into larger town- and city-wide initiatives. For example, Durham looked to include Watch for Me NC program elements in its forthcoming Vision Zero campaign. And Charlotte planned to include Watch for Me NC language on speeding, safe passing distances, and failing to yield to pedestrians in crosswalks in the city's upcoming pedestrian and bicycle plans (*Charlotte Walks* and *Charlotte Bike*, respectively). Finally, at ECU, the University's involvement in Watch for Me NC inspired engineers to install two pedestrian hybrid beacons in pedestrian-dense locations (i.e., one near the hospital, another near ECU's campus).

Challenges involved in implementing Watch for Me NC included ensuring partner commitment, lack of staff time and resources, and key partners failing to prioritize pedestrian and bicycle safety. In Boone, Watch for Me NC partners working with the Public Works department struggled to get new partners involved in programming. Similarly, in Charlotte and Greensboro, school and planning department staff often did not have sufficient time to maintain their involvement in the Watch for Me NC campaign. This was especially true during those months when Charlotte and UNC-Greensboro police were focused on maintaining the public order when presidential candidates visited the towns. Otherwise, in small, rural communities with limited resources like Transylvania County, it seemed difficult to motivate local police departments to prioritize Watch for Me NC -related enforcement strategies. And in Boone, where most of the town's streets are state-owned, public works staff discovered DOT Division engineers were not open to installing non-MUTCD-approved signs—such as ones promoting Watch for Me NC messaging—on state-owned roads. One overarching challenge involved effectively communicating to partnering agencies that Watch for Me NC does not belong to any one agency, that in order to be effective, it must feature coordinated efforts among diverse agencies.

Partners' advice revolved around how to frame Watch for Me NC, forming and working with coalitions, and incorporating Watch for Me NC activities into policies. Many Watch for Me NC partner communities struggled with the notion that Watch for Me NC should represent a self-sustaining program, rather than a seasonal series of isolated events. In Boone, contacts recommended framing Watch for Me NC as a long-term program, one that should be operated continuously throughout the calendar year. Other Watch for Me NC partners advocated for more nuanced timing of Watch for Me NC implementation. In Transylvania County, Charlotte, and Durham, contacts suggested introducing Watch for Me NC -related language and procedures into the planning process (i.e., as towns develop pedestrian, bicycle, or Vision Zero plans). This way, they argued, Watch for Me NC -related messaging and enforcement can be coordinated with planned built environment and policy changes. In Corolla, Watch for Me NC partners intended to kick off the program in accordance with a local grocery store chain's employee orientation. Partners in Durham, Charlotte, and ECU recommended working closely with local police departments to plan where and when the police should carry out enforcement activities. Across nearly all Watch for Me NC partners, interview respondents advised prospective partners to identify organizations with overlapping safety goals in order to more effectively diffuse campaign messaging throughout communities. Potential partner organizations included: schools—early education will help instill safe pedestrian and bicyclist skills; law enforcement; fire departments; DOT Division and resident engineers; Active Routes to School and Safe Kids contacts; planning and public health departments; local hospital organizations; bicycle and pedestrian advisory boards; AARP; MPOs and RPOs; and local businesses. More generally, partners shared that communities need a dedicated

core group of champions who work with others in the community to inspire residents to talk about safety and see Watch for Me NC as a communal effort toward enhancing the safety of all road users.

Conclusions and Recommendations

A growing body of literature suggests that multi-pronged education and enforcement initiatives such as Watch for Me NC have potential to improve pedestrian and bicycle safety. Overall, the 2016 program involved significant participation by partners in diverse communities across NC. Participants reported strong collaborations between police, schools, planning, hospitals, local businesses, and others. They noted that committed partnerships, established action plans, and long-term commitment to the program and pedestrian and bicycle safety in general were keys to effectively implementing the Watch for Me NC program.

Following are some key takeaways and recommendations for enhancing the program delivery at the state and local level in future years.

Partner Recruitment and Training/Capacity-Building

Consistent with the lessons from prior years, having stable, long-term community champions and strong, committed coalitions are essential for success as the Watch for Me NC program continues to expand to new communities across the state. Municipal partners devoted significant in-kind support in the form of labor hours for project coordination meetings, enforcement operations, and community outreach. Unlike other programs, no funds were used to provide overtime pay or additional support enforcement. Limited resources and staff turnover in the partner communities' leadership continued to hinder several communities' Watch for Me NC -related progress in 2016. Continuing to use a competitive process to select high-interest partners with a demonstrated capacity to commit to the requirements of the program and a contingency plan for staff turnover, may help mitigate this issue in future years. Additionally, the technical assistance and resources offered to communities can help offset the costs of participation and address common concerns, such as developing diverse coalitions to support program delivery, having a timeline to support program management and schedules, coordinating program-related communications and law enforcement efforts, and institutionalizing plans and program resources.

At the state level, it is recommended that state program managers continue to form partnerships with state-level agencies and organizations—such as GHSP, DMV, Safe Kids, DPI, and others—organizations that can support the program in various ways, including providing complementary funding or resources (e.g., supporting localized program evaluations, providing bicycles or bicycle helmets) to the local communities and enhance message delivery or enforcement activities. Regular meetings of the steering committee can provide a structure for communications, ensure accountability, and provide continuity to program activities. In interviews, most partners expressed a desire to meet program colleagues in person. They shared how they were likely to seek the assistance from people they have met in person, and that being in others' physical company was likely to inspire more creative thinking in terms of Watch for Me NC program design and delivery.

In terms of the content or focus of the law enforcement training provided, agencies continue to request information on how to improve partnerships, communications, and long-term program sustainability. To this end, future training emphasis areas could include ways to integrate the Watch for Me NC program with other initiatives, such as SRTS programs, Safe Communities and Safe Kids programs, and broader transportation and/or highway safety programs, activities, or policies. Another continuing topic of

interest is in how to equitably deliver Watch for Me NC resources and law enforcement operations as well as engage traditionally underserved communities through program outreach and partnership.

Local and Statewide Outreach, Education, and Enforcement

The Watch for Me NC program should continue to employ safety messages consistent with frequently occurring pedestrian and bicycle crash types in step with best practices. Regarding the Watch for Me NC's outreach and education components in 2016, partners made good use of the print and safety materials supplied to them, and the materials worked in a variety of settings, including campuses and K-8 schools. Of all the materials provided, the bike lights remained the most popular material item, but partners made use of banners, bumper stickers, sandwich boards for law enforcement, and the "warning ticket books" as well.

To complement the existing messages regarding safe behaviors, future iterations of Watch for Me NC should incorporate norms-based messaging, such as has been done in Gainesville, FL and other locations. Should driver yielding rates continue to improve over the years, and yielding to pedestrians becomes a more normative behavior, HSRC recommends that future Watch for Me NC campaigns feature more perceived social norms-informed interventions. More specifically, such interventions could be delivered through a narrative communication framework, whereby stories feature incidents of positive behavior change (e.g., a driver becoming aware of pedestrian safety after nearly getting hit while walking). Narrative communication approaches would likely enhance the believability of Watch for Me NC's messages, suppress counter arguing among people receiving the messages, and improve road user behavior.⁴

Together with pedestrian and bicycle safety education, targeted, high-visibility enforcement can significantly enhance safety. In 2016, officers reported conducting more than 79 operations targeting enforcement of pedestrian and/or bicycle-related laws, not as many as in 2015, yet above average from prior years. As in years past, getting all agencies to report activities consistently and in a timely manner remained a challenge and likely contributed to under-reporting of actual law enforcement efforts. Further, few agencies reported using high-visibility strategies, such as media engagement, in a routine way to supplement enforcement efforts and amplify the message to a broader audience. Thus, while the officer resource investment in conducting enforcement was large, the estimate of total persons impacted by the operations is likely low. In future years, enforcement agencies could be further encouraged or even required to include a public information officer/communications staff in their local coalition or invite such staff to the enforcement trainings and share meetings.

Program Evaluation

In 2016, no funds were available to evaluate injury-related program outcomes such as changes in crash rates. However, as the program now has more communities involved and years of active program delivery, a crash-based evaluation may be more feasible.

In the absence of crash-based studies, we recommend continued monitoring of public knowledge and perceptions through the use of randomized phone surveys. If repeated in the future using the same methodology, the survey data gathered back in 2015 can serve as a baseline from which we can continue measurement of the impact of Watch for Me NC program on communities' knowledge of laws

⁴ See: Moran, M. B., Murphy, S. T., Frank, L., & Baezconde-Garbanati, L. (2013). The Ability of Narrative Communication to Address Health-related Social Norms. *International Review of Social Research*, *3*(2), 131–149.

and perceptions of road user behaviors. However, in isolation, these results are limited in their ability to estimate the program's effectiveness and whether it has produced differential effects among Watch for Me-participating communities. Ideally, we would use this as a baseline from which to examine trends both within and between Watch for Me-engaged and non-participating regions over time. Further, if additional resources exist, we would recommend estimating mixed effects regression models to predict various outcomes of interest while accounting for other potential factors affecting responses. These mixed effects models would examine so-called "fixed effects," such as respondents' age and income, as well as the "random effects" of the towns respondents live in to control for differences among respondents based upon where they live—e.g., town-based "cultural effects."

Field observations of key behaviors, such as driver yielding, remain an important complement to crash-based and survey-based evaluation measures. However, as more communities participate year round, the opportunities for before-after study designs diminish and more sophisticated approaches may be needed. Further, as the program grows, HSRC's central management of the data collection process to monitor driver yielding changes becomes more challenging and resource-intensive. Additional technical support, such as training and the provision of surveys or tally sheets that could be used locally, could help motivate communities to take a more active role in local program evaluation. Having more data at the local level could also be helpful in evaluating the program statewide and in providing evidence to support decision-making regarding future Watch for Me NC program needs, such as message development or refinement.

As more communities incorporate elements of the Watch for Me NC program into their suite of interventions, it would benefit everyone to understand what works, why it works, and under what conditions it is most likely to work. Evaluations like these, which consider people's travel-related behaviors, attitudes, beliefs, and perceptions will get us closer to such an understanding.