Be Alert, Don’t Get Hurt

A pedestrian safety campaign on an urban, academic campus

Johns Hopkins Center for Injury Research and Policy
“Be Alert: Don’t Get Hurt” is a clear call to action to both pedestrians and drivers who travel in and around the Johns Hopkins Medical Institutions campus situated in Baltimore, Maryland. It serves as the central theme for a social marketing campaign implemented as part of a multifaceted pedestrian safety program begun in 2012 at the request of our University’s leadership to address the growing problem of pedestrian injuries on and around our urban, academic campus. This brochure offers you both an overview of best practices for planning the program and specific examples from our work.

With funding from the Maryland Highway Safety Office and Johns Hopkins University, we embarked on a multi-phased process to:

• investigate the problem of pedestrian injuries on and around our campus,
• identify environmental, enforcement and educational strategies to address it,
• design and implement a social marketing campaign, and
• evaluate the impact of each pedestrian safety strategy deployed.

We worked with a number of committed government, institution and community partners with the goal of using our shared resources efficiently and with maximum impact.

This program and its evaluation will be ongoing, but we are sharing our progress-to-date in the hopes that our experiences will be useful to others working to reduce pedestrian injuries. We would welcome the opportunity to work with you to create pedestrian safety solutions in your communities.

Sincerely,

Andrea Gielen, ScD, ScM,
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Johns Hopkins Center for Injury Research and Policy

BACKGROUND

The Setting

The Johns Hopkins Medical Institutions (JHMI) is an academic medical campus in East Baltimore that includes schools of medicine, nursing, and public health as well as an adult and a pediatric hospital. Situated on the campus are administrative and faculty offices, libraries, classrooms, outpatient clinics, hospital facilities, and research laboratories.

The campus is workplace to tens of thousands of employees and thousands of students, whose tenure on campus may last as little as one year or as long as a decade. The geographic footprint of the campus encompasses a six block by six block area that experiences frequent construction, renovation and expansion.

Public Health Problem of Pedestrian Injuries in the US

- In 2012, 4,743 pedestrians died and another 76,000 were injured.\(^1\)
- Pedestrian deaths have been tracked nationally since 1975 and were highest (8,096 deaths) in 1975 and lowest (4,109) in 2009.\(^1\)
- Pedestrian injuries have been tracked nationally since 1988, which also coincides with the highest number of injury events (110,000); the lowest (59,000) was in 2009.\(^1\)
- Pedestrian fatalities account for 11-12% of all traffic-related fatalities in the US.\(^2\)
- The majority of pedestrian fatalities and injuries occur in urban areas.\(^3,4\)
- Fewer pedestrian deaths and injuries in 2012 occurred at intersections compared to non-intersections (933 (20%) versus 3301 (70%)).\(^1\)
- The pedestrian injury rate per 100,000 is higher overall among males versus females (27 vs 21) and is highest overall in the 21-24 year old age group.\(^1\)
- The pedestrian death rate per 100,000 is higher overall among males versus females (2.13 vs 0.91) and is highest overall among those aged 74 and older (2.59).\(^1\)

Our Charge

Johns Hopkins University (JHU) leadership was concerned about a growing number of incidents involving pedestrians being struck and injured by vehicles in and around the campus, and a JHU Pedestrian Safety Committee was created. They engaged faculty from the Johns Hopkins Center for Injury Research and Policy (JHCIRP) to provide injury prevention expertise. JHCIRP is an interdisciplinary center within the Bloomberg School of Public Health that has more than a quarter-century of experience conducting high quality research, practice, advocacy and education on a wide range of injury topics. JHCIRP is one of only ten centers for excellence in injury research funded by the National Center for Injury Prevention and Control at the CDC.

For this project, Center faculty conducted an environmental scan to identify potential resources, stakeholders and partners (see last page) who could contribute to finding solutions to the pedestrian injury problem in and around the campus. The processes we undertook, the products we developed, and the evaluation strategies we employed to measure impact are described in the remainder of this brochure.
The mix of pedestrians in and around campus is varied. Included are: families from the surrounding communities who must traverse the campus as they go to school, to work, or to the store; students who come to Hopkins to study for a week or a year or several years; patients who, with their families, come to the hospital and clinics; and Hopkins employees, who come to campus daily, weekly or monthly, and whose work brings them here seven days a week, 24 hours a day. Regardless of their affiliation, pedestrians bring with them their own set of expectations, experiences and culturally-driven walking behaviors.

DEVELOPING A COMPREHENSIVE PEDESTRIAN CAMPAIGN

Engage Stakeholders
A core tenet of developing injury control projects, like any other public health campaign, is to engage stakeholders early and often. Stakeholders include any person, group or organization that is affected by pedestrian safety or that has the potential to affect the pedestrian safety program to be developed. Working closely with the JHU Pedestrian Safety Committee, we identified stakeholders including the students and employees who study and work on campus, neighborhood members who traverse the campus on any given day, facilities management staff who are responsible for the physical plant, and University leadership who have the responsibility to align finite resources with a larger number of public safety priorities. We also sought input from police and other public safety officers who are responsible for enforcing traffic and other safety laws in and around the campus. And finally, stakeholder agencies we worked with included our local and state highway safety offices (Maryland Highway Safety Office and Baltimore City Department of Transportation) and other government and community organizations (Baltimore Metropolitan Council) interested in pedestrian safety.

Understand the Problem
Examine Crash Data. Developing an effective response to any pedestrian safety challenge is contingent on a clear understanding of the specific problem, its scope, impact and contributing factors. One method of defining the pedestrian problem is to explore crash data. Data can be utilized to examine the details of any individual crash and to aggregate crash characteristics that reveal trends and common characteristics across all crashes. Data document the magnitude of the problem, identify high-risk times, audiences, and situations (e.g., students crossing the street against the light on their way to class in the morning). Our crash data led us to identify four high-risk intersections on the JHMI campus where numerous pedestrian incidents had occurred over the previous two years.

Review the Literature. Experienced program developers understand the benefits of reviewing the literature and conducting environmental scans to find effective programs and approaches. These tactics yield helpful guidance by eliminating approaches that have been unsuccessful and highlighting evidence-based strategies. The literature on risk and protective factors as well as on evaluated interventions and campaigns was explored early on in our program planning process.

Understand the Science: 3 Es Applied to Pedestrian Injuries
Environmental, enforcement and educational approaches are three broad categories of interventions that can be used to address the problem of pedestrian injuries. Together, they are known as the “three Es” of injury prevention. While these strategies can be deployed individually, combining approaches is recommended to create meaningful and sustained change.

*Environmental interventions* use engineering, design and construction strategies to make changes to the physical environment. Such approaches are
frequently described as passive or automatic interventions because they may require no effort on the part of the individual to stay safe. The Pedestrian Safety Committee contracted with an engineering firm to conduct an environmental audit and make recommendations for traffic safety enhancements in our high-risk areas. One relatively simple engineering change that was implemented almost immediately was adding a five-second delay on a traffic signal at one of the high-risk intersections identified by the crash data. Engineering fixes such as redirecting or better separating motor vehicle and pedestrian traffic, improving intersections, or erecting new traffic signals frequently take considerably more time and resources and require input and approval from local and state agencies.

**Enforcement strategies** reduce dangerous behaviors through the adoption and enforcement of regulations, policies and laws. Enforcement can target both individual behaviors and organizational policies. We started by examining existing motor vehicle legislation related to pedestrian safety and learned that the laws were confusing and hard to interpret. We met with University safety officials and local law enforcement agencies to understand their resources, concerns and barriers to enforcing pedestrian safety laws. The University hired two Special Traffic Enforcement Officers (STEOs) from the local Department of Transportation (DOT) to direct pedestrian and vehicular traffic through two high-risk intersections during peak times on weekdays. The STEOs used their discretion in ticketing unlawful drivers, but could not ticket unlawful pedestrians due to DOT policy. We met with the local Baltimore City Police Department (BCPD), who can ticket both drivers and pedestrians, and learned that a lack of resources and other priorities would keep them from enforcing pedestrian laws in our target area unless overtime was paid to officers. Police also raised a quality of life concern that low-income residents could be negatively impacted by getting ticketed, and they may not have photo identification, which is needed for police to issue a ticket. One of our funders, Maryland Highway Safety Office (MHSO), paid for some BCPD officers to do enforcement in our area for a limited time. JHU leadership was in agreement with BCPD concerns about quality of life issues for local residents. For a one week period, BCPD officers issued unofficial warnings as a way to educate drivers and pedestrians and reinforce the main messages of our campaign.

**Educational interventions** include a variety of strategies to promote change by informing priority audiences about the hazards, explaining risks, and persuading people to adopt safer behaviors. Given our multiple audiences, geographically defined target area, and available resources, we chose a social marketing campaign as our educational strategy, as described in detail in the remainder of the brochure.

We identified roles for all three types of interventions – engineering, enforcement and education – to improve pedestrian safety on the JHMI campus. But we also realized that engineering and enforcement strategies would require more coordination with other outside groups, more resources than we currently had, and a longer timeline. While still moving forward on engineering and enforcement options, we prioritized developing an educational intervention to address the needs of our diverse audiences.

**What is Social Marketing?**

Social marketing is a strategic and systematic process used to develop activities to change or maintain people’s behavior for the benefit of individuals and society as a whole. Social marketing combines theories and techniques from the social sciences and commercial marketing. The process helps you decide which audience segments to work with and what specific behavior(s) to influence.

**Conduct Formative Evaluation**

**Online Survey.** In August of 2013, a web link to a 10-minute online survey was distributed by email listservs and e-newsletters to employees and students at JHMI and to residents and others in the community not affiliated with the institution. The survey was designed to assess knowledge, intent, attitudes, and pedestrian and driver behaviors and was guided by our knowledge of behavioral theories that help explain and predict people’s behaviors. We asked respondents about perceptions of the importance of pedestrian injuries as a problem, who contributed most to the problem (driver or pedestrian) and to rate possible interventions to improve pedestrian safety.

**Message Concepts.** Adding to our online survey results, we also reviewed the literature and examined exemplar programs conducted in other communities to help construct strategic approaches and messages for our campaign. Three main strategic approaches emerged from the formative data: law enforcement,
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Civility, and alertness. We drafted a number of messaging options for each strategy and created mock-ups of materials for testing.

- Law enforcement: “Obey or Pay.” or “Stop. Wait. Don’t Tempt Fate.”
- Civility: “Don’t Compete. Share the Street.” or “The Street Belongs to Everyone. Share it Don’t Wear It.”
- Alertness: “Be Seen, Be Safe.” or “Be Alert, Don’t Get Hurt.”

Key Results from Online Survey

- Virtually everyone (97%) described pedestrian injuries around campus as an “important” or “very important” problem.
- Most (74%) reported that drivers and pedestrians both contribute equally to the problem.
- A majority (54%) of respondents endorsed enforcement and education campaigns to address the pedestrian problem.
- Many respondents shared personal experiences of being hit or having a near miss as a pedestrian (40%) or hitting a pedestrian or having a near miss as a driver (17%).

Focus Groups. Four focus groups were conducted in October 2013 and included representatives from each of our major audience segments: students, employees and community residents. The draft concepts and messages were posted on story boards and presented to each group. Our social marketing consultant facilitated discussion about each option, soliciting reactions and interpretations from the group. The focus group moderator also asked participants to rank (on a Likert scale from 1-5) how effective each strategic approach and creative message would be in changing pedestrian and driver behavior to reduce pedestrian crashes.

Focus group discussions revealed that “law enforcement” would likely be the most effective strategic approach, but only if there was actual enforcement being done by the local BCPD. The participants overall thought that this would not be a priority for the local BCPD. The final focus group results ranked “alertness” as the most effective strategic approach. Participants suggested that the most effective messages would be those that communicated: relevant statistics, consequences of driver and pedestrian actions, and a specific call to action. Recommendations also directed the campaign to integrate visuals that were “dramatic but not too gruesome” and a logo that was “colorful.” Other suggestions from the participants included an appeal to use testimonials and to develop a short, memorable slogan.

The campaign logo (see Figure 1) plays off the color scheme of a traffic light while creatively communicating our call to action. The logo was adapted for use with our promotional materials and expanded with a more detailed call to action targeted to either pedestrians or drivers. Figure 2 shows an example of a promotional postcard targeting drivers. For examples of other promotional materials used in the campaign, visit the JHCIRP website, click here.

IMPLEMENTING AND EVALUATING THE CAMPAIGN

Overall Approach and Campaign Phases

The urgency of the pedestrian issue at JHMI required us to implement the campaign as quickly as possible, while at the same time maintaining a commitment to follow best practices for creating a data-driven and theory-informed campaign. The campaign was implemented in two phases. Phase 1 involved the distribution of campaign materials on and around the JHMI campus. Phase 2 was a complementary set of campaign materials that integrated testimonials, personal stories that highlighted the negative consequences of being a pedestrian crash victim or of having hit a pedestrian. This two-phase rollout was strategic in that it allowed us time to introduce new

STOP | WAIT | GO SLOW

Be Alert. Don’t Get Hurt.

Figure 1. Pedestrian safety campaign logo
visuals and complementary messaging and maintain our audience’s attention over time with fresh and increasingly persuasive materials. Evaluation strategies were integrated into each phase of our work, and findings are highlighted below.

Phase 1 Materials and Distribution. We thought of phase 1 as a ‘soft launch’ of the campaign. Seventy radio spots aired on two of the top three radio stations for all adults over 18 in the Baltimore listening area reaching an estimated 768,200 listeners per week. A ten-second spot also aired, using the campaign tag line of “Stop and look both ways. Wait and watch for pedestrians. Go Slow. Be Alert. Don’t Get Hurt.” We distributed five different poster designs throughout the campus between February and April 2014. Posters were also displayed on 25 Charm City Circulators, free municipal buses that have 374,000 riders each month.

Each poster had a unique image that matched the specific poster topic, including:
• Number of pedestrians killed in Maryland
• Number of pedestrians hit in Baltimore
• Number of drivers in Baltimore who hit pedestrians
• Number of pedestrians injured and killed around Johns Hopkins campuses

All posters included the campaign logo, tailored to either pedestrians or drivers, and the logos of each partner agency. Campaign materials directed at pedestrians included sandwich boards, table tents, postcards, shuttle and bus placards, and a variety of promotional items such as bags, tumblers and reflectors. Digital images of the posters were displayed on plasma screens throughout the buildings on campus. To reach drivers, the campaign materials were on display at all parking garages in the form of exterior banners, sandwich boards, posters in elevators, and signs on exit gates. Bumper stickers were distributed at garage pay stations. Our goal was to saturate the campus with campaign materials.

Phase 2 Materials and Distribution. We developed a series of testimonials, based on actual police-reported incidents, describing three unique consequences of pedestrian crashes: the hospitalization of a pedestrian victim, the aftermath experienced by a driver who killed a woman, and a driver sentenced to jail as a result of hitting a pedestrian. These stories were included on posters and in paid radio advertisements. The launch of phase 2 was marked with a press event that featured University and City transportation leadership. All of the major local news affiliates’ evening programs covered the event and aired our messages.

For phase 2, we joined forces with the Baltimore Metropolitan Council (BMC), our region’s metropolitan planning organization. BMC’s overall goal is to improve the quality of life and economic vitality in Baltimore City and surrounding region. Their annual “Street Smart” pedestrian safety campaign adopted
our phase 2 materials, which allowed us to expand our audience reach. Through our partnership, BMC provided Street Teams, volunteers who wore the campaign logo and distributed educational materials to pedestrians and drivers in high-risk areas. Thirty-nine million audio and visual media impressions were made during phase 2.

**Measures for Evaluation**

A variety of evaluation strategies are being used to determine the impact of our campaign. These include:

- Monitoring the number of pedestrian crashes before, during and after the campaign,
- Tracking the number of posters and signs displayed and promotional items distributed,
- Documenting news coverage and radio airtime,
- Surveying employees’ and community members’ knowledge, attitudes and behaviors,
- Video recording high-risk intersections to observe driver and pedestrian behaviors.

Results of these data collection efforts will be summarized and shared in subsequent reports. In the meantime, we continue to work with members of the Pedestrian Safety Committee and other stakeholders to ensure that pedestrian safety is a priority for those who work, study, and travel around our campus.

**SUMMARY**

One goal in creating this brochure was to document an approach to improving pedestrian safety on an urban campus in the hopes that our experiences can be helpful to others. If we work together to “Be Alert” to the problem of pedestrian injuries, we can ensure that more people “Don’t Get Hurt.”

**References**


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Lead organization with overall responsibility for the campaign; led development of formative work; created, implemented and evaluated the campaign; liaised with partner groups to identify other environmental and educational needs related to pedestrian safety; developed dissemination guide to communicate process and findings

Supported this work through two phases of funding; provided overall direction related to the administration of funding

Provided additional resources which were used to extend the reach of the campaign; provided street teams who spread the campaign materials and messages around the campus and Baltimore region

Led by Senior Associate Dean of the Johns Hopkins Bloomberg School of Public Health, the Committee included members from various units and divisions across the Johns Hopkins Medical Institutions; served as both stakeholder and sounding board to guide the overall work; provided additional resources to offset costs of the campaign; coordinated JHU assets for use by or during the campaign; provided necessary approvals for distributing surveys, displaying campaign materials, and conducting video recordings.
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