

Motorist Awareness for Motorcyclist Safety Lacks Evidence of Effectiveness
Skilled Motorcyclist Association – Responsible, Trained and Educated Riders, Inc,
www.smarter-usa.org
June, 2024

Introduction

The mission of SMARTER is to gather, examine, catalogue, share, post and distribute motorcyclist safety factual information and research and to advocate for the use of such knowledge as the basis of decisions.

This article addresses the reasons traditional May is Motorcycle Safety Awareness Month campaigns likely do not work for their intended purpose: changing driver behavior and therefore reducing car/motorcyclist crashes. Specifically, the six points below:

1. *There are no peer-reviewed and published evaluations of motorist awareness programs for motorcyclist safety*
2. *Traditional motorist awareness messages are based on two false assumptions (a) the messages wrongly assume motorists are not aware of motorcyclists on the road (b) the messages wrongly assume if drivers were just told to “look for motorcycles” they would change their behavior*
3. *Road safety communication campaigns in general lack evidence of effectiveness*
4. *Campaigns are not appropriately assessed, There is often a mismatch between the campaign goal (for example, saving lives and reducing injuries) and measures of success (for example, the number of brochures distributed)*
5. *Traditional motorist awareness campaign messages do not address the likely causes of the “Looked But Failed to See” right-of-way violation caused crashes and are inconsistent with knowledge about how the human eyes and mind work..*
6. *The messages are often factually incorrect*

Following is an individual examination of each of these points.

1. Lack of Evidence of Effectiveness

Given how frequently motorist awareness campaigns take a leading role in motorcyclist safety efforts one would assume there is abundant clear evidence of the effectiveness of such programs. Not so. There are no direct evaluations of the effectiveness of motorist awareness campaigns to increase driver awareness of motorcyclists and stand-alone road safety campaigns, in general, lack evidence of effectiveness (see # 3). These campaigns are based on the unsupported assumption that if drivers look twice, paid more attention, or are reminded that motorcyclists are on the road, they would actually “see” approaching riders and the result would be a reduction in motorcyclist right-of-way violations by other motorists. The lack of evaluations allows ineffective campaigns and campaign techniques to continue to be implemented without question.

2. Traditional messages are based on two false assumptions regarding human behavior

The following is slightly edited from the introduction of “Countermeasures that work: A highway safety countermeasure guide for State Highway Safety Offices, 11th edition.”

People are extraordinarily complex and often behave in seemingly inconsistent and unpredictable ways. Consequently, influencing or changing a behavior, which is the goal of most highway safety programs, is not a simple undertaking.

*Education and awareness-raising campaigns are common approaches used to encourage behavior change. They are often seen as low-hanging fruits, easy, and low cost to implement but they rarely work in isolation. The goal of an awareness-raising campaign is to influence the attitudes, beliefs, or behavior of people through information and education. **This strategy presumes that the audience lacks key information and that simply learning the information will be sufficient to change behavior** (emphasis added) .*

Related to traditional motorist awareness for motorcyclist safety, the strategy presumes that car drivers do not know motorcyclists are on the road and that if they were reminded (every May in many states) they would change their behavior. Another assumption is that drivers do not look or do not look twice and if they were directed by a PSA or a billboard or yard sign to “look twice” they would change their search behavior and see motorcyclists.

The traditional May message provided to car drivers is “May is Motorcycle Awareness Month, Look Twice, Save a Life.” This is an easy to remember rhyming phrase which tells readers the end goal – save a life. However, general safety messages that tell people to “drive safely” or “be alert” or “look twice” are not specific enough to be meaningful to the audience.

“Countermeasures” continues: *Before implementing any type of awareness-raising or educational messaging, it is important to ask 3 questions:*

1. Does the audience lack this information? If the audience already knows the information being shared, additional efforts to “raise awareness” about the issue are unlikely to have any effect on behavior.

2. Is the information specific? General safety messages that tell people to “drive safely” or “be alert” are not specific enough to be meaningful to the audience.

*3. Is it being used as part of a larger strategy for behavior change? **Information alone rarely changes behavior.** (emphasis added)*

3. Road safety communication campaigns, in general, lack evidence of effectiveness

According to Delhomme, et. el., 1999 (Evaluated Road Safety Media Campaigns: An Overview of 265 Evaluated Campaigns and Some Meta-Analysis on Accidents) *“In general, a road safety publicity campaign, by itself, has only modest impact on attitudes and behaviour and no significant impact on crashes. Campaigns work best when combined with other interventions, such as enforcement of traffic laws and regulations, or provision of other safety services and products.”*

But many, if not most, traditional “May is Motorcycle Awareness” are stand-alone communication campaigns that are generally not evaluated in any empirical manner. Assessment methods might include surveys of attitudes and perceptions of drivers. Such self-report data can be helpful in understanding if the message was heard but these measures do not evaluate if any actual driver behavior change took place as a result of hearing the message.

4. Campaigns are not appropriately evaluated

The common main goal of motorist awareness campaign is to reduce car/motorcyclist crashes and therefore decrease the deaths and injuries that result from such crashes. While most such programs state some version of this as the campaign goal, there is no attempt to evaluate the campaigns effectiveness based on the stated goal. Instead, campaigns assess effectiveness based on such things as number of flyers distributed, billboards placed or yard signs distributed. Somewhat more sophisticated are campaigns with targeted audiences and assessments based on the estimated percent of targeted audience members who are exposed to the message.

Michigan is a good example here. Michigan has a well-funded and relatively sophisticated motorist awareness campaign. The stated Michigan awareness campaign business goal is *“Reduce motorcyclist injuries and fatalities resulting from motorcycle and passenger vehicle crashes.”* The communication goal is *“Increase motorists’ awareness of motorcyclists’ presence and vulnerability on the road.”* Both are worthy goals. However, it is hard to understand how Michigan’s “Measuring Success” statement provides any real evaluation/assessment of either of these goals: “Goal is to reach 80% of target audience” with “Measurement inputs” being listed as impressions, people reached, and frequency of message.

Michigan’s measuring success or evaluation data are not in any way connected to the stated goal of reducing motorcyclist injuries and fatalities. Michigan is not unique in this disconnect between stated goal and assessment of success.

5. Traditional May is Motorcycle Awareness Month messages are based on an incorrect assumption of the cause of the Looked but Failed to See crash and are inconsistent with current knowledge of human perception.

Solutions to any problem do not work when the cause of the problem is not correctly identified. Traditional May is Awareness Month messages are based on an incorrect identification of the problem.

The traditional “look for motorcycles” or “look twice, save a life” messages assume the cause for car drivers not seeing motorcycle riders and causing a crash is simply that driver fail to look or fail to look twice. The cause of these right-of-way violation crashes is far from that simple.

Based on an extensive review of the research SMARTER has identified at least four chances for error in the “looked but failed to see” car/motorcyclist crash

1. Didn’t look - rare if ever actually happens
2. Looked but couldn’t see. Vision is blocked. Looking twice is, therefore, not a solution

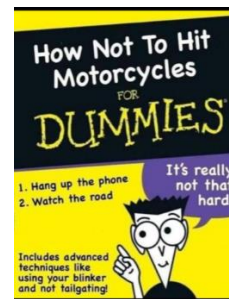
3. Looked, motorcyclist is visible, but didn't see. There are at least three visual perceptual phenomena that can account for this (inattention blindness, saccade masking and motion camouflage) which looking twice will not eliminate
4. Looked, saw and miscalculated arrival time

A document describing these four chances for error is available here:

<http://smarter-usa.org/wp-content/uploads/2020/09/The-Four-Chances-for-Error-with-pics-1.pdf>

6. Traditional messages are often factually incorrect.

Two traditional messages are shown below. We will use these two messages to illustrate the fact that messages are often factually incorrect.



These are examples of simple solution messages that are regularly promoted. The messages in both are not accurate. First, motorcycles (and the people who ride them) are not everywhere. Motorcycles are less than 3% of registered vehicles and account for less than 1 % of vehicle miles traveled.

In the message on the right, we tell drivers that seeing motorcycles is easy and we label drivers as dummies and expect that message will change driver behavior and reduce the frequency of the LBFTS crashes.

And in almost all cases of these messages we ask drivers to look for motorcycles vs. motorcycle riders or motorcyclists. A driver can look for motorcycles and see 5 parked outside a bar. The driver could look twice and identify that 4 of the 5 were the same brand. No lives would be saved.

Summary

This article has addressed the reasons traditional May is Motorcycle Safety Awareness Month campaigns likely do not work for their intended purpose: changing driver behavior and therefore reducing car/motorcyclist crashes. Six reasons for the lack of effectiveness for these traditional campaigns have been identified and discussed.

Kirley, B. B., Robison, K. L., Goodwin, A. H., Harmon, K. J. O'Brien, N. P., West, A., Harrell, S. S., Thomas, L., & Brookshire, K. (2023, November). *Countermeasures that work: A highway safety countermeasure guide for State Highway Safety Offices, 11th edition, 2023* (Report No. DOT HS 813 490). National Highway Traffic Safety Administration.