MONTANA
Department of Transportation
Research

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Project Summary Report
FHWA/MT-23-003/9832-766

# EFFECTIVENESS OF HIGHWAY SAFETY PUBLIC EDUCATION AT MONTANA MOTOR VEHICLE REGISTRATION STATIONS BY STREAMING A VARIETY OF SAFETY CONTENT

https://www.mdt.mt.gov/research/projects/safety/safetyvideos.aspx

## Introduction

State departments of transportation, including the Montana Department of Transportation (MDT), are working towards eliminating roadway fatalities and serious injuries through initiatives like Towards Zero Deaths (TZD). Underpinning TZD, is the knowledge that a positive traffic safety culture, which is the shared beliefs (including values and assumptions) of a group that affect behaviors related to traffic safety, is needed with both the agency and the public. One strategy in this effort is to educate the public via traffic safety videos about the need for and benefits of safety countermeasures (e.g., roundabouts), as well as the consequences of risky behaviors (e.g., texting while driving), to ideally change their beliefs and influence their behaviors.

The primary objectives for this research project were to:

1.
Identify and secure already available traffic safety content (i.e., videos) (instead of creating new content), and purchase and display the appropriate equipment to display the traffic safety content;

2.
Survey the public leaving Motor Vehicle Division (MVD) and County Treasurer Office (CTO) facilities to determine if they were paying attention to the videos and their content shown; and

3.
Determine if the traffic safety messages had an impact on the behavior of the surveyed public.

## What We Did

To accomplish the identified objectives, three tasks were conducted: 1) Pre-Deployment Planning, 2) Deployment, and 3) Evaluation and Support.

During the Pre-Deployment Planning task, candidate equipment was identified and tested with an off-the-shelf system ultimately chosen; deployment locations were identified and finalized including the Kalispell MVD, Helena CTO, Bozeman MVD, Bozeman CTO, and Billings MVD; traffic safety content was identified and obtained with priority given to topics within the MDT Comprehensive Highway Safety Plan emphasis areas; and storyboards were compiled containing multiple media types (e.g., videos, photos, infographics, and trivia).

During the Deployment task, equipment was purchased and installed at the facilities; staff at the facilities were provided with a brief training regarding how to operate the equipment; and traffic safety video loops/sequences were created from the storyboards and loaded onto the equipment.

Finally, during the Evaluation and Support task, the researchers reviewed literature and compiled information that was leveraged to develop intercept and follow-up surveys. Intercept surveys were collected from all deployment locations and follow up surveys were sent out around two weeks after a survey respondent's visit to the MVD or CTO.

## What We Found

While respondents did not report a change in behavior due to the traffic safety video loops/sequences, they did have an impact. First, some respondents suggested that they would be safer drivers while other respondents shared the information they watched with others. This is one step in the process of changing beliefs which can lead to changing behaviors and growing a positive safety culture. Secondly, this system was found to be a low-cost solution (approximately $450 per location for the technology), with minimal staff time required, for educating the public about traffic safety. Additionally, the video loops/sequences reached a broad demographic (old, young, and those in between; men, women and individuals identifying as non-binary), including demographics which are the focus of MDTs media campaigns (men, aged eighteen to thirty-four).

Some lessons learned included that video captures from the traffic safety video loops/sequences were recalled more frequently than slogans; the length and style of a video (e.g., technical or engaging an emotional response) was thought to have influenced recall; and respondents felt that the trivia was memorable. Additionally, the location of the television significantly influenced whether or not the video loops/sequences were viewed. Locating the television behind staff that entered a visitor's data is preferred (Figure 1). Furthermore, each facility's waiting room policy will influence whether or not this educational approach remains impactful (e.g., allowing people to remain in their vehicles). Audio was not used for the video loop/sequences for this project and may have been a factor in both the TV conspicuity and the video recall. The lack of audio definitely had an impact on media that could be included in the video loop/sequence (e.g., the FHWA Sweet Sound of Safety video about rumblestrips did not get included as sound was needed).

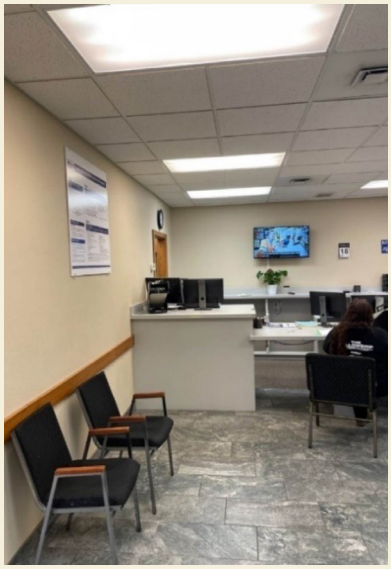

**Figure 1:** *Desirable Location of a Television –Behind Staff Entering Data*

## What The Researchers Recommend

As a low-cost solution that did show benefits, the researchers recommend that MDT continue to use this educational method and consider expanding it beyond MVD and CTO locations to other public and private locations with waiting rooms or break rooms. For any locations utilized, a policy should be set-up for MDT to review the TV location every 6 months to ensure it remains conspicuous or to have the host location provide MDT with information about remodels/changes to room layouts that could affect the TV viewing.

While it was not feasible to do in this project, it is recommended that MDT consider rotating the traffic safety content within the video loops/sequences to relate to the season ((e.g., don't crowd the plow in the winter; watch for motorcycles in the summer) while still keeping them under 10 minutes in total length. Additionally, as MDT creates new traffic safety videos, they should consider developing those that are shocking style (with a positive spin) or that engage a viewer's empathy.

Future research ideas include: comparing the educational benefit of the videos with sound with the drawback of distracting facility staff; evaluating other video viewing methods (e.g., restricting internet access at a location until a patron watches the traffic safety video loop/sequence); evaluating the use of other locations such as private partners (e.g., AAA or gas stations); comparing differences in traffic safety culture between states; and investigating if one media type is more effective than others (e.g., trivia). If future evaluation is done, researchers should consider adding 15-17 year olds into the survey analysis to better represent MT drivers, a financial incentive for survey responses; and more locations in proximity to Tribal nations.

*More Info:*

The research is documented in Report FHWA/MT-23-003/9832-766


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