

**Title of Intervention:** Influence of Signs Prompting Motorists to Yield on Pedestrian Safety

**Intervention Strategies:** Environments and Policies

**Purpose of the Intervention:** To reduce the occurrence of motor vehicle-pedestrian conflicts

**Population:** Motorists

**Setting:** Marked crosswalks in Nova Scotia, Canada; community-based

**Partners:** The Nova Scotia Department of Transportation, Traffic Co-coordinator for the City of Dartmouth

**Intervention Description:**

- Environments and Policies: Crosswalk lines and advance markings indicating a crosswalk ahead (consisting of an "X") were painted 50 meters on each side of the crosswalk. Two signs were constructed to prompt motorists to stop at a specific location for pedestrians reading, "STOP HERE FOR PEDESTRIANS" with an arrow pointing toward the road at a 45 degree angle. A 20.3 centimeter wide line constructed from two strips of removable line markings was extended across the three lanes beginning at the side of each sign to prompt motorists to yield further back from the crosswalk to allow vehicles a better view of pedestrians crossing the street.

**Theory:** Not mentioned

**Resources Required:**

- Staff/Volunteers: Not mentioned
- Training: Not mentioned
- Technology: Not mentioned
- Space: Not mentioned
- Budget: The cost for a pair of signs for each road in Nova Scotia was approximately \$100.
- Intervention: Signs, paint, tape
- Evaluation: Trained observers, hand-held micro cassette tape recorder, evaluation/scoring sheets

**Evaluation:**

- Design: Reversal Experimental Design, Multiple-baseline design
- Methods and Measures: Trained observers scored the behavior of motorists and pedestrians at crosswalks each weekday between the hours of 9am and 5 pm. Observers either dictated all observations into a hand-held micro cassette recorder and took the data from the tape at a later time or conducted scoring by hand.

**Outcomes:**

- Short Term Impact: Not measured
- Long Term Impact: The introduction of the intervention resulted in a large increase in the percentage of motorists stopping at least 10 feet from the crosswalk. This change was maintained during the one-month and one-year follow-up. The percentage of motorists yielding to pedestrians when the flashing amber light was activated and when it was not activated showed that the activation of the yellow light did lead to a small increase in the number of motorists yielding to pedestrians. The addition of the advance stop lines produced little further improvement in the percentage of the motorists yielding to pedestrians. The changes were maintained during the one month and one year follow up.

**Maintenance:** After becoming aware of the results of this intervention, the Nova Scotia Department of Transportation began incorporating the use of advance stop lines for marking crosswalks on multi-lane streets.

**Lessons Learned:** Results of this intervention demonstrate that a simple inexpensive prompting intervention can reduce conflict between motorists and pedestrians.

**Citation(s):**

Van Houten, R. and L. Malenfant (1992). "The influence of signs prompting motorists to yield before marked crosswalks on motor vehicle-pedestrian conflicts at crosswalks with flashing amber." *Accid Anal Prev* 24(3): 217-25.

Van Houten, R. (1988). "The effects of advance stop lines and sign prompts on pedestrian safety in a crosswalk on a multilane highway." *Journal of Applied Behavior Analysis* 21(3): 245-251.