Introduction

Communication is essential to research, and planning outreach and dissemination of research results are important steps in the communications process. The right people need not only to hear about the research conducted but also to understand how to use it.

The NCHRP Project 17-78 Communications Plan identifies a general approach, key audiences, opportunities, and components to consider for communications and implementation activities. These activities take place after the completion of the project.

Goal, Objectives, and Scope

The goal of this plan is to create a framework that identifies ways to reach out to and encourage professionals working with safety prediction methods to consult NCHRP Research Report 983: Reliability of Crash Prediction Models, A Guide for Quantifying and Improving the Reliability of Model Results (hereinafter referred to as the Guide) and other products developed under NCHRP Project 17-78.

The objectives of the plan are two-fold:

1. Develop content that fills the needs of the target audiences
2. Identify platforms to disseminate the appropriate content to meet the needs of those target audiences

Target Audiences

The two target audiences for this project are practitioners and researchers.

Practitioners will benefit from the Guide and accompanying products. These products will meet their needs in the following areas:

- How to quantify the impact of selecting/neglecting certain data parameters in the safety estimate predictions
- How to estimate and interpret the accuracy of their predictions and use of crash modification factors (CMFs) in the various analyses
How to "translate" or communicate the results to their managers, other practitioners, and the general public.

Researchers will benefit from the Guide and *NCHRP Web-Only Document 303: Understanding and Communicating Reliability of Crash Prediction Models* (the Conduct of Research Report for NCHRP Project 17-78) because these resources provide information about what is expected to accompany research on prediction models and CMFs to support the accuracy and reliability of models, CMFs, and other safety analyses. Researchers will be better equipped to develop sound research plans and comprehensive documentation of their work.

**Overview of NCHRP Project 17-78**

The needs of the target audiences were studied, and content was developed by the NCHRP Project 17-78 team to meet these needs. *NCHRP Web-Only Document 303* documents the research undertaken and the results.

These results provide guidance to the target audiences in the following issues of interest:

- Mismatch between crash prediction models (CPMs) and base conditions of CMFs
- Error or uncertainty in input value
- Relative importance of additional variable
- Using a CPM to estimate frequency of rare crash types and severities
- Predicting outside the range of independent variables
- Predictions using CPMs estimated for other facility types
- Estimating the variance of predictions from a CPM

The NCHRP Project 17-78 team considered the needs of the target audiences when developing these tools that will facilitate the implementation of the Communications Plan.

The tools are as follows:

- *NCHRP Web-Only Document 303: Understanding and Communicating Reliability of Crash Prediction Models*: a useful resource for researchers and practitioners
- PowerPoint presentation: a customizable presentation of the results of specific analyses carried out by practitioners
- Flyer: a one-page fact sheet that provides a concise overview of the purpose, topics, and scenarios included in the Guide

**Institutions, Implementation Leaders, and Outreach Platforms**

The NCHRP Project 17-78 team identified the following key institutions, panels, committees, associations, and individuals who are well positioned to conduct outreach related to this project and could be encouraged to become implementation leaders.
Some groups to consider for outreach include:

- NCHRP Project 17-78 panel
- NCHRP Project 17-71A panel
- NCHRP Project 17-78 panel
- NCHRP Project 17-71A panel
- AASHTO Steering Committee for 2nd Edition of Highway Safety Manual (HSM)
- AASHTO Safety Committee
- FHWA HSM Implementation Pooled Fund Study Participants
- FHWA Office of Safety
- FHWA Office of Safety Research and Development
- ITE Safety Council
- ITE Traffic Engineering Council
- ITE general membership
- TRB Safety Performance and Analysis Committee
- TRB Transportation Safety Management Systems Committee
- TRB Performance Effects of Geometric Design Committee
- TRB general membership
- National Local and Tribal Assistance Program Association (NLTAPA)
- Transportation Association of Canada (TAC) Road Safety Committee
- TAC Traffic Operations and Management Committee
- TAC Geometric Design Committee
- Canadian Association of Road Safety Professionals (CARSP)

When reaching out to these various groups and organizations, it is important to recognize that specific platforms and tools may work better for one target audience than for another. For example, some groups may have existing meetings platforms, communications tools, and/or other opportunities that could be leveraged to communicate with members of these groups. Timing is also an important consideration for outreach.

**Implementation and Outreach Activities**

The following activities form part of the outreach effort after the completion of the NCHRP Project 17-78:

- A presentation at the LTAP Annual Meeting

  Presentations at TRB Committee Meetings
  - TRB Safety Performance and Analysis Committee
  - TRB Transportation Safety Management Systems Committee
  - TRB Performance Effects of Geometric Design Committee

- Sponsorship of a TRB Committee for a proposal for a national webinar; deliver the webinar, if approved by TRB

- A presentation at annual AASHTO meetings, including shared links to other products
Coordinating with NCHRP Program Manager(s) to share this project’s products with other ongoing related projects, such as NCHRP Projects 17-83, 17-74, 17-84, and 17-85

Identifying opportunities to submit an article promoting the Guide and other products as well as their digital links for free download. Flyer content could be adapted to be used in newsletter articles, as appropriate per the outlet's guidelines and specifications

Potential target publications, media outlets, and organizations to consider for this outreach include:

- AASHTO: http://www.highwaysafetym manual.org/Pages/default.aspx
- TRB Committee websites
- ITE Journal and newsletter
- ITE Transportation Safety Council Members’ Chatroom
- TAC SharePoint for Standing Committees of Chief Engineers’ Council
- TAC Newsletter
- CARSP website: www.carsp.ca
- LTAP newsletter

**Monitoring and Measuring Implementation Progress and Impact**

Besides planning how NCHRP Project 17-78 communications and outreach activities will be conducted and implemented, monitoring and measuring the impact of these activities are important components of successful research implementation. By doing so along the way—not just at the conclusion of all of these potential activities—NCHRP could facilitate any needed adjustments and/or enhancements to the plan.

Monitoring implementation can be done on two fronts:

1. Measuring progress concerning a given schedule of activities
2. Measuring impact concerning changes in practice

Potential metrics for measuring the success of the implementation of the NCHRP Project 17-78 communications and outreach activities related to a given schedule of activities include:

- Tracking the inclusion of mentions of and articles about the NCHRP Project 17-78 tools in meetings, newsletters, websites, etc.
- Tracking the reach/readership of these appearances
• Tracking requests to present on/about NCHRP Project 17-78 tools
• Tracking website traffic and downloads of NCHRP Project 17-78 tools

Potential metrics for measuring the success of the implementation of the NCHRP Project 17-78 communications and outreach activities related to impact on changes in practice include:

• Inclusion of Guide content and links to the Guide and other tools in new publications such as the 2nd Edition of the HSM
• Adoption of the guidelines from the Guide by researchers in estimating CPMs
• Adoption of the guidelines from the Guide by practitioners when using CPMs
• Inclusion of the guidelines given in the Guide in research problem statements by TRB, NCHRP, state DOTs, and FHWA
• Use of the presentations and illustrative examples and Guide recommendations
• Being put into practice by practitioners at public and private agencies

Other general potential metrics to measure the success of NCHRP Project 17-78 communications and outreach activities include:

• Number of audiences reached
• Number of individuals reached through the target audiences
• Number and type of communications tools that target audiences received
• Number of presentations given to target audiences and the number of participants at these presentations
• Number of visits to a given website
• Number of participants in a webinar

Additional feedback and input on the effectiveness of implementing the communications plan activities could be garnered by using the following direct-feedback techniques:

• Online surveys
• Focus groups
• Web-based discussion groups

Conclusions
This NCHRP Project 17-78 Communications Plan identifies activities for communicating the research findings and results and identifies the target audience so that the findings and results can be integrated into the research world and into practice.

If successful, NCHRP Project 17-78 research findings and guidance will reach transportation researchers and practitioners working in transportation and road safety analyses and help them understand how to use the NCHRP Web-Only Document 303 and the Guide, as appropriate, to improve the reliability of CPMs they are developing.