Traffic Safety Culture Primer

Task 1 Report: Develop Outlines for the Traffic Safety Culture Multimedia Primer Components

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October 31, 2018
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EXECUTIVE SUMMARY

There is a lack of shared language and understanding about traffic safety culture (TSC) that limits the ability of agencies to explore this topic and engage new stakeholders. The purpose of Task 1 is to provide an outline for a primer that is intended to increase understanding about TSC and provide common language to discuss and apply this approach to traffic safety. This primer is to be supported by a number of tools including a Webinar, PowerPoint Presentation, Animated Video, and Poster. This task report presents the proposed outlines for the primer and supporting tools as well as a suggested format style for the primer. The TSC Pooled Fund members are requested to provide comments on the topics and structure proposed in these outlines as well as offer suggestions for best practice in style formats that can communicate complex concepts to a general audience.
INTRODUCTION

There is growing interest in “traffic safety culture” (TSC) as a key factor to manage and sustain safe roadway transportation systems, especially as more jurisdictions adopt targets of zero traffic fatalities and serious injuries. However, the theory, terminology, and methods involved in addressing traffic safety culture come from human and social science disciplines that are not typically included in traditional traffic safety, engineering, or other behavioral change agencies (e.g., departments of transportation, driver's licensing, motor vehicle records, etc.). The lack of shared language and understanding about traffic safety culture limits the ability of agencies to explore this topic and engage new stakeholders. Additionally, the variation in the interpretation and implementation of strategies to improve traffic safety has resulted in a lack of consensus about best practices. Communication tools that develop shared language and understanding about traffic safety culture and its relationship to vision zero goals are needed.

The objective of this project is to provide a multimedia primer about traffic safety culture (TSC) and how a cultural perspective can support vision zero goals. The purpose of this primer is to foster shared language and understanding about traffic safety culture – thus “priming” stakeholders for new and constructive dialogue and thinking about this complex topic.

- **TSC Primer**: A concise report to define and introduce the key topics relevant to the understanding and identification of TSC as a core component of highway safety planning. This document will be written in a non-academic style suited to traffic safety practitioners and stakeholders.

To accompany the primer, several tools will be developed to support practitioners and stakeholders to understand and communicate the key concepts and support next steps to integrate TSC into highway safety planning processes:

- **Series of PowerPoint Slides** - Key sections of the primer will have a set of accompanying PowerPoint slides with talking points that practitioners can use to communicate about the primer with other stakeholders. There will also be a brief overview suitable for a 20-minute presentation.

- **Animated Video** - A short (i.e., three to five minute), animated video will be developed to introduce the key topics. The video can easily be shared and used to increase awareness and use of the primer.

- **Webinar** – A webinar will be created to introduce the primer to the traffic safety community. The webinar will highlight key features of the tools and promote their use.

- **Poster** – A high-resolution graphic will be created that is suitable for printing on a large poster for use in a conference poster session for traffic safety professionals to disseminate a summary of the primer and the tools.
The deliverable for Task 1 is an outline of the key topics to be presented in the primer and supporting tools. The outline will specify these key topics in a proposed sequential order. Task 1 also proposes an example style for how the primer may “look” as a finished product. The style will be selected to facilitate ease of use and understandability.
RESULTS

Topic Outlines
CHSC developed the outlines from (1) the needs articulated in the problem statement of the original proposal and (2) attending a recent Toward Zero Deaths Traffic Safety Culture Workshop hosted by AAASHTO/NCHRP with the goal of “outline and prioritizing tools for a Toward Zero Deaths effort by supporting organizations in growing a positive traffic safety culture within their communities.” In consideration of both these sources of needs, the proposed outlines for the primer and supporting tools can be found in this task report appendices.

- TSC Primer Outline (Appendix A)
- PowerPoint Slides (Appendix B)
- Animated Video (Appendix C)
- Webinar (Appendix D)
- Poster (Appendix E)

Primer Style
Important goals for the TSC primer include being accessible (inviting, navigable), understandable (readable, logical), and effective (relatable, usable). To support these goals, CHSC reviewed a wide range of comparable primers in other domains to identify best practices in communicating complex information to general audiences. Currently, the preferred example of best practice for a report format comparable to the intent of the TSC primer is the GHSA's Drug-Impaired Driving: Marijuana and Opioids Raise Critical Issues for States report.¹ As shown in Figure 1, the annotated clouds on the selected pages from this report indicate different examples of best practices in style formats.

¹ This report can be accessed online at: https://www.ghsa.org/resources/DUID18
Size of the problem
How frequently drugs are detected in drivers

No data sources accurately document how frequently drivers have a measurable amount of some drug in their systems. Research also does not report data from two sources: NHTSA’s Fatality Analysis Reporting System (FARS) and roadside surveys in the United States and Canada.

FARS data
FARS is the best data source that includes information from all states. Within FARS, the most accurate and complete data are for fatally-injured drivers because they are tested for drugs more frequently than surviving drivers. However, as documented by Berning and Snith (2014):

- Testing rates vary considerably by state, from very low (2%) to very high (96%). States test for different drugs, using different testing methods and different cutoff values. This means that FARS data cannot be compared directly.
- Testing protocols and cutoff values can change over time. This means that conclusions regarding change over time must be considered carefully.

Figure 1. Example of formatting style for TSC primer.
CONCLUSION

This Task 1 report includes an outline of the key topics to be presented in the primer and supporting tools. It also provides an example style for how the primer may “look” as a finished product. The style will be selected to facilitate ease of use and understandability.

→ CHSC is seeking comments on these outlines in terms of proposed topics (Do these topics satisfy your needs to understand and communicate about TSC?) as well as the proposed sequence of these topics (Does the order of topics make sense and seem logical to develop understanding about TSC?). CHSC will review and revise the outlines based on the common themes identified by reviewing the provided comments.

→ CHSC is also seeking comments on this proposed style as well as suggestions for other types of report styles that demonstrate best practices for communicating complex topics to a general audience. CHSC will review these comments and suggestions to inform the final decision about the style format of the TSC primer.
APPENDIX A – OUTLINE OF TSC PRIMER

I. Preface (< one page)
   1. About this primer
      a. Traffic safety is important to us all.
      b. Too many people are killed or seriously injured as a result of motor
         vehicle crashes.
      c. Purpose of this primer is to provide a basic understanding of how traffic
         safety culture influences traffic safety.
         i. Communicate with leadership about importance of TSC to agency
            goals.
         ii. Identify role of TSC in traffic safety planning (SHSP).
         iii. Create strategies that are more effective in changing behavior.
   2. Origin of this primer
      a. CHSC is primary author
      b. Emerged from needs expressed by TSC Pooled Fund members
      c. AASHTO/NCHRP TSC working group supporting Toward Zero Deaths
         and Vision Zero
   3. Structure of this primer
      a. Introduction
      b. Ten Key Ideas about TS Culture
         i. Connects the dots between safety (outcomes), behavior, and
            culture
         ii. Provides a practical definition of TSC
         iii. Introduces how this understanding of TSC changes our approach to
            TS
      c. Three examples of applying this understanding of TSC
      d. Ways stakeholders can use this primer and tools

II. Introduction (< one page)
   1. Our common purpose is traffic safety aligned with shared vision of zero traffic
      fatalities.
      a. Current trends in TS related outcomes (crashes)
      b. Behaviors lead to outcomes (crashes)
   2. Recognizing the primary role of the road user, most of our efforts focus on
      changing behavior or mitigating the consequences of the behavior.
      a. These efforts often focus on the physical environment
      b. We also need to consider the role of the social environment on road user
         behavior
   3. Traffic safety culture is often discussed, but rarely defined or clearly understood
      a. Lack of definition and understanding makes it
i. Difficult to measure, assess change, and evaluate strategies
ii. Difficult to compare across jurisdictions
iii. Difficult to apply to existing strategies or develop new ones

4. Purpose of this primer is to
   a. Provide an understanding of how culture impacts TS
   b. Provide a practical definition of TSC that can be measured and changed
   c. Provide examples of using this understanding to develop more effective strategies

5. Organization of the primer
   a. Chapter III covers ten key ideas about TSC
      i. Provides a practical definition of TSC
      ii. How this definition makes a difference in approaching TS
   b. Chapter IV provides three examples
   c. Chapter V provides next steps for stakeholders

III. What is Traffic Safety Culture (TSC)?
1. Ten guiding premises
   • Traffic crashes are a significant public health concern.
   • Most traffic crashes are caused by human behavior.
   • Human behavior is influenced by beliefs.
   • Beliefs develop based on experience (actual and vicarious) and socialization.
   • Socialization is the process whereby an individual develops beliefs that align with those of a group with which the individual identifies (social identity).
   • Individuals can form an identity with many different groups in their social environment, each with a different degree of bonding.
   • A strong bond results in great conformity and motivation to abide with the group beliefs.
   • The shared beliefs of a group that affect behaviors related to traffic safety are called "traffic safety culture."
   • The traffic safety culture of a group emerges from actions taken by stakeholders across the social ecology.
   • Traffic safety culture strategies increase actions by stakeholders across the social ecology to improve traffic safety culture among various groups.

IV. How does this TSC definition change how we approach traffic safety?

1. This definition leads to strategies that are more effective
   a. If we change underlying beliefs, behavior change is more likely to be sustained
   b. By considering the entire system of beliefs, multiple strategies can be developed other than just changing attitudes
2. This approach can be intrinsically acceptable to our communities
   a. This approach seeks to grow what is positive, rather than create change through fear
   b. This approach seeks to find solutions that are already in the community and consistent with the unique culture of the community

3. This understanding of TSC promotes sustained change
   a. Various layers of the social ecology can actively reinforce shared beliefs
   b. Beliefs shared across the social ecology are more likely to be passed on to next generations and to individuals joining a community

4. What is the vision for changing TSC?
   a. Safe behavior is the norm
   b. Intervening to help others be safe is encouraged
   c. All traffic safety efforts are comprised of collaborative partnerships

V. What are some examples of using TSC?
   1. Case study #1: Growing TSC at the community level (MnDOT).
   2. Case study #2: Working Across the Social Ecology to Increase Seat Belt Use (Utah).
   3. Case study #3: Addressing Emerging Concerns: DUICA in WA

4. Lessons Learned from Case Studies
   a. Identify common success factors from talking to champions in case study examples.
   b. Integrate into SHSP (TSC- MN, WA).
   c. Operate as a process.
   d. Create coalitions by aligning benefits to stakeholder mission and metrics.
   e. Create a shared culture and vision amongst stakeholders.

5. Is it evidence-based?
   a. Discuss FHWA definition of evidence-based.
   b. Relate theory-based model to CDC definition of evidence-based.

VI. What are some next steps you can take?
   1. Develop shared understanding
      a. Share this primer
      b. Use supportive materials
      c. Engage in critical conversations
   2. Examine your organization’s TSC
      a. Examine your organization’s safety-related values
      b. Examine your organizations safety-related beliefs
      c. Examine your organizations internal programs and strategies to grow a strong TSC
   3. Examine SHSP for opportunities to apply this understanding of TSC
      a. Measure baseline TSC on critical issue areas (e.g., impaired driving)
      b. Examine current strategies for how well they impact TSC
APPENDIX B – OUTLINE OF SUPPORT TOOL: POWERPOINT SLIDES

I. Title Slide: A Primer for Understanding Traffic Safety Culture

II. Slide: Purpose
   1. The purpose of this primer is to provide a basic understanding of how traffic safety culture influences traffic safety.
      a. Communicate with leadership about importance of TSC to agency goals.
      b. Identify role of TSC in traffic safety planning (SHSP).
      c. Create strategies that are more effective in changing behavior.

III. Slide: Introduction
   1. Our common purpose is traffic safety aligned with the shared vision of zero traffic fatalities.
      a. Current trends in TS related outcomes (crashes)
      b. Behaviors lead to outcomes (crashes)
   2. Recognizing the primary role of the road user, most of our efforts focus on changing behavior or mitigating the consequences of the behavior.
      a. These efforts often focus on the physical environment
      b. We also need to consider the role of the social environment on road user behavior.

IV. Slide: Traffic Safety Culture
   2. Traffic safety culture is often discussed, but rarely defined or clearly understood
      a. Lack of definition and understanding makes it
         i. Difficult to measure, assess change, and evaluate strategies
         ii. Difficult to compare across jurisdictions
         iii. Difficult to apply to existing strategies or develop new ones

V. Slide: Ten Key Ideas
   1. Traffic crashes are a significant public health concern.
   2. Most traffic crashes are caused by human behavior.
   3. Human behavior is influenced by beliefs.
   4. Beliefs develop based on experience (actual and vicarious) and socialization.
   5. Socialization is the process whereby an individual develops beliefs that align with those of a group with which the individual identifies (social identity).
   6. Individuals can form an identity with many different groups in their social environment, each with a different degree of bonding.
   7. A strong bond results in great conformity and motivation to abide with the group beliefs.
8. The shared beliefs of a group that affect behaviors related to traffic safety are called "traffic safety culture."
9. The traffic safety culture of a group emerges from actions taken by stakeholders across the social ecology.
10. Traffic safety culture strategies increase actions by stakeholders across the social ecology to improve traffic safety culture among various groups.

VI. *Slide:* What’s different about this?
1. This definition leads to strategies that are more effective
   a. If we change underlying beliefs, behavior change is more likely to be sustained
   b. By considering the entire system of beliefs, multiple strategies can be developed other than just changing attitudes.
2. This approach can be intrinsically acceptable to our communities.
   a. This approach seeks to grow what is positive, rather than create change through fear.
   b. This approach seeks to find solutions that are already in the community and consistent with the unique culture of the community.
3. This understanding of TSC promotes sustained change
   a. Various layers of the social ecology can actively reinforce shared beliefs
   b. Beliefs shared across the social ecology are more likely to be passed on to next generations and to individuals joining a community

VII. *Slide:* A vision for success
1. Safe behavior is the norm.
2. Intervening to help others be safe is encouraged.
3. All traffic safety efforts are comprised of collaborative partnerships.

VIII. *Slide:* Next Steps
4. Examine your organization’s TSC
   a. Examine your organization’s safety-related values
   b. Examine your organization’s safety-related beliefs
   c. Examine your organization’s internal programs to grow a strong TSC
5. Integration of TSC into organization planning (SHSP)
   a. Leadership buy in for TSC as a core focus
   b. Engage stakeholders across the social ecology who can influence TSC
   c. Allocate supporting resources
   d. Ensure TSC is regularly measured (as a performance index)
   e. Develop and deploy strategies to improve TSC
   f. Evaluate strategies
APPENDIX C – OUTLINE OF SUPPORT TOOL: ANIMATED VIDEO

Approximately 4 minutes

I. Voice: “Our common purpose is traffic safety aligned with shared vision of zero traffic fatalities.”
   - [voice/graphic] Current trends in TS related outcomes (crashes)
   - [voice/graphic] Behaviors lead to outcomes (crashes)

II. Voice: “Recognizing the primary role of the road user, most of our efforts focus on changing behavior or mitigating the consequences of the behavior.”
   - [voice/graphic] These efforts often focus on the physical environment
   - [voice/graphic] But we also need to consider the role of the social environment on road user behavior

III. Voice: “Traffic safety culture is often discussed, but rarely defined or clearly understood.”
   - [voice/graphic] Lack of definition and understanding make it difficult to measure, assess change, and evaluate strategies
     - [voice] Difficult to compare across jurisdictions
     - [voice] Difficult to apply to existing strategies or develop new ones

IV. Voice: “To define traffic safety culture, we need to take a step back and understand the importance of culture to individuals. There are 10 important ideas we need to understand about humans as social beings that will help us define and understand traffic safety culture and its role in achieving Vision Zero.”
   1. [voice/graphic] Traffic crashes are a significant public health concern.
   2. [voice/graphic] Most traffic crashes are caused by human behavior.
   3. [voice/graphic] Human behavior is influenced by beliefs.
   4. [voice/graphic] Beliefs develop based on experience (actual and vicarious) and socialization.
   5. [voice/graphic] Socialization is the process whereby an individual develops beliefs that align with those of a group with which the individual identifies (social identity).
   6. [voice/graphic] Individuals can form an identity with many different groups in their social environment, each with a different degree of bonding.
   7. [voice/graphic] A strong bond results in great conformity and motivation to abide with the group beliefs.
   8. [voice/graphic] The shared beliefs of a group that affect behaviors related to traffic safety are called "traffic safety culture."
9. [voice/graphic] The traffic safety culture of a group emerges from actions taken by stakeholders across the social ecology.

10. [voice/graphic] Traffic safety culture strategies increase actions by stakeholders across the social ecology to improve traffic safety culture among various groups.

V. Voice: “So, what might our communities and transportation system look like if we were able to grow a strong traffic safety culture?”

- [voice/graphic] Safe behavior is the norm
- [voice/graphic] Intervening to help others be safe is encouraged
- [voice/graphic] All traffic safety efforts are comprised of collaborative partnerships
- [voice/graphic] Vision Zero would be realized, just like in other sectors (aviation)

VI. Voice: “And so, to achieve our traffic safety goals, we need to consider the role of traffic safety culture. This role begins in our own agencies.”

- [voice/graphic] What are our own “true” values and beliefs about safety?
- [voice/graphic] Do we really understand why road users behave as they do?
- [voice/graphic] Is traffic safety culture a “real” part of our strategic planning?
- [voice/graphic] Are we collaborating with the right partners to really change traffic safety culture?
APPENDIX D – OUTLINE OF SUPPORT TOOL: WEBINAR

Approximately 30 minutes

I. Slide: Common purpose
   1. Traffic safety is important to us all.
   2. Too many people are killed or seriously injured as a result of motor vehicle crashes.
   3. To improve traffic safety, we need to change road user behavior.
   4. How can we be more effective?

II. Slide: What is this primer?
   1. Purpose of this primer is to provide a basic understanding of how traffic safety culture influences traffic safety.
      a. Communicate with leadership about importance of TSC to agency goals.
      b. Identify role of TSC in traffic safety planning (SHSP).
      c. Create strategies that are more effective in changing behavior.

III. Slide: Origin of this primer
   1. CHSC is primary author
   2. Emerged from needs expressed by TSC Pooled Fund members
   3. AASHTO/NCHRP TSC working group supporting Towards Zero Deaths and Vision Zero

IV. Slide: Structure of this primer
   1. Introduction
   2. Ten Key Ideas about TS Culture
      a. Connects the dots between safety (outcomes), behavior, and culture
      b. Provides a practical definition of TSC
      c. Introduces how this understanding of TSC changes our approach to TS
   3. Three examples of applying this understanding of TSC
   4. Ways stakeholders can use this primer and tools

V. Slide: What is Traffic Safety Culture (TSC)?
   1. Ten guiding premises
      - Traffic crashes are a significant public health concern.
      - Most traffic crashes are caused by human behavior.
      - Human behavior is influenced by beliefs.
      - Beliefs develop based on experience (actual and vicarious) and socialization.
      - Socialization is the process whereby an individual develops beliefs that align with those of a group with which the individual identifies (social identity).
      - Individuals can form an identity with many different groups in their social environment, each with a different degree of bonding.
• A strong bond results in great conformity and motivation to abide with the group beliefs.
• The shared beliefs of a group that affect behaviors related to traffic safety are called "traffic safety culture."
• The traffic safety culture of a group emerges from actions taken by stakeholders across the social ecology.
• Traffic safety culture strategies increase actions by stakeholders across the social ecology to improve traffic safety culture among various groups.

VI.  *Slide*: How to use this primer.

1. Develop shared understanding
   a. Share this primer
   b. Use supportive materials
   c. Engage in critical conversations

2. Examine your organization’s TSC
   a. Examine your organization’s safety-related values
   b. Examine your organizations safety-related beliefs
   c. Examine your organizations internal programs and strategies to grow a strong TSC

3. Examine SHSP for opportunities to apply this understanding of TSC
   a. Measure baseline TSC on critical issue areas (e.g., impaired driving)
   b. Examine current strategies for how well they impact TSC
APPENDIX E – OUTLINE OF SUPPORT TOOL: POSTER

I. Preface (< one page)
   1. About this primer
      g. Traffic safety is important to us all.
      h. Too many people are killed or seriously injured as a result of motor vehicle crashes.
      i. Purpose of this primer is to provide a basic understanding of how traffic safety culture influences traffic safety.
         i. Communicate with leadership about importance of TSC to agency goals.
         ii. Identify role of TSC in traffic safety planning (SHSP).
         iii. Create strategies that are more effective in changing behavior

II. Ten Key Ideas About How TSC Impacts TS
   A. Traffic crashes are a significant public health concern.
   B. Most traffic crashes are caused by human behavior.
   C. Human behavior is influenced by beliefs.
   D. Beliefs develop based on experience (actual and vicarious) and socialization.
   E. Socialization is the process whereby an individual develops beliefs that align with those of a group with which the individual identifies (social identity).
   F. Individuals can form an identity with many different groups in their social environment, each with a different degree of bonding.
   G. A strong bond results in great conformity and motivation to abide with the group beliefs.
   H. The shared beliefs of a group that affect behaviors related to traffic safety are called "traffic safety culture."
   I. The traffic safety culture of a group emerges from actions taken by stakeholders across the social ecology.
   J. Traffic safety culture strategies increase actions by stakeholders across the social ecology to improve traffic safety culture among various groups.

II. Next Steps for TS Stakeholders
   a. Develop shared understanding
   b. Examine your organization’s TSC
   c. Examine SHSP for opportunities to apply this understanding of TSC