



TOOLKIT

Evidence-Based Behavior Change Campaigns to Improve Traffic Safety

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INTRODUCTION

Preventing traffic injuries and fatalities requires targeted interventions that promote safe behaviors and deter unsafe behaviors among road users. Implementing behavior change campaigns can contribute to reducing the risk factors associated with traffic injuries and fatalities.

Behavior change campaigns use organized communication strategies to deliver messages designed to influence people to modify their health behaviors. These campaigns can be implemented alone, but can be more effective when delivered in combination with other strategies and countermeasures, including driver education, rewards, and law enforcement. Importantly, behavior change campaigns can improve traffic safety when they are grounded in evidence.

Overview of the Toolkit. The *Evidence-Based Behavior Change Campaigns to Improve Traffic Safety Toolkit* is a hands-on resource designed for traffic safety practitioners to develop campaigns that are both evidence-based and effective. The Toolkit includes information and resources to help traffic safety practitioners plan, design, implement, and evaluate effective behavior change campaigns. The toolkit combines evidence-based examples and lessons learned from the fields of traffic safety, behavior change, and public health.

Using the Toolkit. The Toolkit describes five phases to help practitioners develop a campaign: 1) understand behavior change campaigns and theory, 2) develop a campaign plan and strategy, 3) develop and pre-test messages, 4) implement the campaign, and 5) evaluate the campaign. Each phase consists of multiple steps, and each step describes activities required to complete the step. Each phase also includes a short checklist of important considerations when developing a campaign.

Deciding Where to Begin. When developing a traffic safety behavior change campaign, practitioners should seek to move through the five phases sequentially. However, the toolkit is designed so practitioners can start at any phase or step, based on existing needs, resources, and progress. Those with limited experience or resources should engage partners and stakeholders who can offer expertise and resources to support campaign planning, development, implementation, and evaluation. This Toolkit is not meant to be a substitute for seeking expertise and support from partners and other stakeholders.

The Evidence-Based Behavior Change Campaigns to Improve Traffic Safety Toolkit is comprised of a roadmap — a one-page overview of the toolkit phases and steps — and detailed information about each corresponding phase and steps.

Supplemental resources include: references for the toolkit ([Appendix A](#)), a complete checklist of activities by phase ([Appendix B](#)), case studies of four behavior change campaigns that are evidence-based and effective and focused on traffic safety and public health ([Appendix C](#)), and additional examples of behavior change campaigns that are evidence-based and effective ([Appendix D](#)).

ROADMAP

Evidence-Based Behavior Change Campaigns to Improve Traffic Safety: A Roadmap for Practitioners



Phase 1: Understand Behavior Change Campaigns and Theory

- **Step 1. Understand the purpose and goals** of traffic safety behavior change campaigns
- **Step 2. Understand the theoretical basis** for behavior change campaigns
- **Step 3. Review commonly used theories, models, and frameworks** for behavior change

Phase 2: Develop a Campaign Plan and Strategy

- **Step 1. Assess the health behavior** by conducting a needs assessment and needs analysis
- **Step 2. Define objectives and goals** of the campaign
- **Step 3. Define the intended audience** by conducting an audience analysis
- **Step 4. Choose communication settings, channels, and activities** for campaign messages
- **Step 5. Identify partners** and develop partnering plans
- **Step 6. Develop a campaign strategy**, including communication and evaluation plans, a logic model, and guiding theory

Phase 3: Develop and Pre-Test Messages

- **Step 1. Develop message concepts** using frame analysis and pre-test the concepts
- **Step 2. Develop messages and materials** and ensure messages match the intended settings and channels
- **Step 3. Pre-test messages and materials** with the intended audience

Phase 4: Implement the Campaign

- **Step 1. Launch the campaign;** determine the launch date and if there will be a kickoff event
- **Step 2. Manage the campaign** by overseeing activities, staff, and budget
- **Step 3. Monitor the campaign and conduct a process evaluation** to determine if the campaign is meeting its goals and if changes are needed
- **Step 4. Engage partners** during implementation

Phase 5: Evaluate the Campaign

- **Step 1. Engage stakeholders** to prepare for evaluation
- **Step 2. Describe the campaign** and refer to evaluation plans developed during the planning stage
- **Step 3. Focus the evaluation design** by developing research questions and determining methods
- **Step 4. Gather credible evidence**, and determine indicators and data sources
- **Step 5. Justify conclusions** and recommendations
- **Step 6. Ensure use of evaluation findings and share lessons learned** to refine or adjust the campaign



PHASE 1: UNDERSTAND BEHAVIOR CHANGE CAMPAIGNS AND THEORY



Phase 1 Objective: Understand the purpose, goals, and theoretical basis of traffic safety behavior change campaigns.

Phase 1 consists of the following steps:

1. Understand the Purpose and Goals of Traffic Safety Behavior Change Campaigns
2. Understand the Theoretical Basis for Behavior Change Campaigns
3. Review Commonly Used Behavior Change Theories, Models, and Frameworks

Step 1. Understand the Purpose and Goals of Traffic Safety Behavior Change Campaigns

A [traffic safety behavior change campaign](#) is a “purposeful attempt to inform, persuade, and motivate a population (or subgroup of a population) to change its attitudes and/or behaviors to improve road safety, using organized communications involving specific media channels within a given time period. It can have multiple purposes, such as informing the public of new or little known traffic rules, increasing problem awareness or convincing people to refrain from hazardous behaviors and adopting safe ones instead.”

Promoting safe behaviors helps reduce traffic-related injuries and fatalities among road users. In the United States, there were more than 37,000 road traffic fatalities and 2,746,000 road traffic injuries [in 2017](#) among drivers, passengers, other vehicle occupants, motorcyclists, bicyclists, and pedestrians. Some of the primary risk factors influencing traffic injuries and fatalities include: excessive speed, driving under the influence of alcohol and/or other drugs, drowsy driving, improper use of seat belts and child restraints, lack of driving experience, and distraction.

Practitioners can address the risk factors associated with traffic injuries and deaths by implementing behavior change campaigns designed to influence road users' behaviors. According to the [Manual for Designing, Implementing, and Evaluating Road Safety Communication Campaigns](#), traffic safety behavior change campaigns use communication strategies, such as mass media or interpersonal communication, to influence behaviors.

Behavior change campaigns can consist of communication strategies and education. Depending on the topic, campaigns can be more effective when combined with other strategies and countermeasures. [The Community Guide](#) provides evidence-based recommendations regarding campaigns that are effective when combined with other strategies and countermeasures. For example, there is stronger evidence of effectiveness when campaigns are paired with strategies such as [law enforcement](#), [checkpoints](#), and [distribution of health-related products](#). The Community Guide's [What Works Factsheet for Motor Vehicle-Related Injury Prevention](#) summarizes effective intervention strategies. Campaigns that combine media and enforcement to reduce alcohol-impaired driving achieved a [median reduction of 8.6%](#) in alcohol-related crashes, injuries, and fatalities.

According to the Manual for Designing, Implementing, and Evaluating Road Safety Communication Campaigns, behavior change campaigns can have different goals (**Box 1**).

Box 1. Goals of Traffic Safety Behavior Change Campaigns

1. Inform the public about new laws or changes to existing laws.
2. Improve knowledge and awareness of appropriate preventive behaviors.
3. Address factors that influence human behaviors.
4. Modify risky behaviors and encourage safe behaviors.
5. Reduce crash frequency and severity.

Step 2. Understand the Theoretical Basis for Behavior Change Campaigns

To influence behavior, it is important to understand the factors that contribute to unsafe health behaviors and strategies that encourage safe health behaviors. Behavior change theory explains the factors affecting health behaviors and the context within which the behaviors occurs. Theory can help practitioners understand the reasons for the behavior, design an intervention that addresses the factors that affect the behavior, and identify how to evaluate success of the intervention. Practitioners may apply one or more theories to behavior change campaigns. To select a theory, practitioners should use information gathered during the planning phase to assess the behavior and develop a plan for the campaign, then work backwards to identify potential solutions and strategies and the most appropriate theory. [Phase 2: Develop a Campaign Plan and Strategy](#) provides more information on planning and developing a logic model.

Step 3. Review Commonly Used Behavior Change Theories, Models, and Frameworks

[Theories, models, and frameworks](#) seek to explain why and how a behavior occurs and determine effective strategies for changing behavior.

Theories explain behaviors by providing a set of variables, describing how those variables interact, and explaining how their interaction leads to specific events or outcomes. **Models** are similar, but often draw on a number of theories and may simplify the description of the behavior within a particular setting or context. **Frameworks** differ from theories and models because they do not explain why the behavior occurs, only the factors that may account for the behavior.

Box 2 presents some of the behavioral theories, models, and frameworks commonly used in traffic safety.

Box 2. Common Theories, Models and Frameworks in Behavior Change

[Health Belief Model \(HBM\)](#). HBM hypothesizes that a behavior can be affected by strategies that target perceived barriers, benefits, threats, and self-efficacy.

[Theory of Planned Behavior \(TPB\)](#). TPB links an individual's beliefs and behaviors, stating that the most important predictor of behavior is behavioral intention. Behavioral intention is influenced by attitude, subjective norms, and perceived behavioral control.

[Social Cognitive Theory \(SCT\)](#). SCT explains behavior as a dynamic and reciprocal interaction of personal, environmental, and behavioral factors. It emphasizes the social influence on behavior – people learn by observing others model the behavior.

[The Transtheoretical Model \(TTM\)/ Stages of Change](#). The TTM posits that individuals move through six stages of change, in a cyclical process, before establishing a new behavior.

[Social Ecological Model](#). This model describes multiple levels of influence on behavior, including individual, interpersonal, organizational, community, and policy levels.

[Diffusion of Innovations Theory](#). This theory states that the adoption of behaviors, ideas, and products is influenced by the innovation itself, communication channels, time, and the social system through which the innovation is spread.

[Social Marketing Framework](#). Social marketing uses marketing principles (“The Four P’s”) to influence behavior: Product, Price, Place, and Promotion.

[The EAST Framework](#). This framework incorporates four principles: to encourage a behavior, make it Easy, Attractive, Social, and Timely (EAST).

[Behavioral Economics Framework](#). This framework incorporates core behavioral economics concepts that can be applied to influence a behavior. These include: framing, which guides how an audience thinks about an issue; reminders, which decrease the mental burden of decisions, making it easier to complete a task; heuristics, a guide that simplifies decision-making; and behavioral defaults, also called a “nudge,” which refers to a change in a situation that makes the preferred behavior the easier choice.



Phase 1 Checklist: Understand Behavior Change Campaigns and Theory



Understand Behavior Change Campaigns and Theory

- Determine the goals of the traffic safety behavior change campaign.
- Select one or more behavior change theories to guide the campaign.
- Apply aspects of one or more behavior change theories to the campaign.



PHASE 2: DEVELOP A CAMPAIGN PLAN AND STRATEGY



Phase 2 Objective: Develop the campaign plan and strategy.

In Phase 2, practitioners should follow six steps:

1. Assess the Health Behavior
2. Define Behavior Change Objectives and Goals
3. Define the Intended Audience
4. Choose Communication Settings, Channels, and Activities
5. Identify Partners and Develop Partnering Plans
6. Develop an Overarching Campaign Strategy and Draft Communication and Evaluation Plans

These steps are adapted from the National Cancer Institute's [Making Health Communication Programs Work](#).

Step 1. Assess the Health Behavior

Step 1 is to determine the health behavior the campaign will address. Behavior change campaigns in traffic safety may seek to modify a problem health behavior or encourage a safe health behavior. These include, for example:

- Distracted driving, such as cell phone use, texting, or talking;
- Alcohol- or drug-impaired driving;
- Drowsy driving;
- Speeding;
- Seat belt use by drivers and passengers; and
- Use of helmets, including by motorcyclists and bicyclists.

Practitioners should conduct a [needs assessment](#). A needs assessment is a process for describing the health behavior completely, determining gaps (or what is needed) to move from current to desired conditions, and identifying solutions.

Practitioners should also conduct a [needs analysis](#). A needs analysis provides data on the gaps identified during the needs assessment and describes the components of a possible solution for closing the gaps. Together, the needs assessment and needs analysis provide information about what is needed to encourage safe behaviors and discourage unsafe behaviors, and to create a plan.

“It is critical to carefully assess and plan ahead of time – make sure you’re clear on what your goals are, who you want to reach, and what you want them to do, and create good partnerships in the community and collect good baseline data.”

Gary Kreps, Ph.D., University Distinguished Professor and Founding Director, Center for Health and Risk Communication, George Mason University

To conduct a needs assessment and needs analysis, practitioners may refer to existing (secondary) data sources or gather new (primary) data. **Box 3** presents examples of [secondary data sources](#), which may include information on road users, risk factors, crash data, and injury surveillance data. When secondary data are not available, practitioners can consider collecting primary data, which is data collected using qualitative or quantitative methods such as [focus groups](#), [interviews](#), [surveys](#), or [observations](#).

Box 3. Sources of Secondary Data	
National Resources	State and Local Resources
<ul style="list-style-type: none"> ■ National Highway Traffic Safety Administration (NHTSA) ■ U.S. Department of Transportation ■ Federal Highway Safety Administration ■ AAA Foundation for Traffic Safety ■ Motorcycle Safety Foundation ■ Centers for Disease Control and Prevention 	<ul style="list-style-type: none"> ■ NHTSA Regional Offices ■ Governors Highway Safety Association ■ State Departments of Transportation ■ Departments of Motor Vehicles ■ State and local public health departments ■ Hospitals and emergency medical systems ■ Public libraries ■ Universities and colleges

During this step, practitioners should also identify and gather information on existing behavior change campaigns (see **Box 4**). Case studies and additional examples of behavior change campaigns that are evidence-based and effective are available in the toolkit’s supplemental resources (see [Appendix C](#) for case studies and [Appendix D](#) for additional examples). The process for adapting existing campaign materials is discussed in [Phase 3: Develop and Pre-Test Messages](#).

Practitioners may also identify stakeholders who are knowledgeable about the health behavior or campaign. Examples of stakeholders include researchers, drivers and pedestrians, crash victims and their families, reporters, law enforcement officers, first responders, health care professionals, community champions, government officials, and policy makers. Practitioners can contact stakeholders to determine if they are willing to share information to help assess the health behavior.

Box 4. Resources for Identifying Existing Campaigns

[The Community Guide](#). The Community Guide summarizes evidence-based interventions, such as [community-based education campaigns to increase child safety seat use](#).

[MV PICCS 3.0](#). CDC’s Motor Vehicle Prioritizing Interventions and Cost Calculator for States (MV PICCS) is an online tool to help decision makers select an effective intervention in traffic safety.

[Countermeasures That Work](#). This NHTSA guide describes countermeasures for addressing risk factors in traffic safety. Practitioners are encouraged to use countermeasures that are marked as effective or promising (likely to be effective).

[Traffic Safety Marketing Materials](#). NHTSA provides examples of traditional and online media materials such as flyers and toolkits for traffic safety topics including drunk driving, child restraints, or motorcycles. These materials may not have been evaluated for their effectiveness.

[Library of Mass Media Campaigns](#). The World Health Organization provides an online database of road safety campaigns by topic, language, and region.

Step 2. Define Behavior Change Objectives and Goals

Next, practitioners should use data from Step 1 to define the campaign’s [objectives and goals](#), which are used to guide specific campaign strategies and activities.

A **goal** is a broad statement describing the expected long-term results of the behavior change campaign. An **objective** is a specific and measurable statement describing the actions that will be taken to achieve desired results.

Campaign objectives should be **SMART** – **S**pecific, **M**easurable, **A**chievable, **R**ealistic, and **T**ime-bound. Many [peer-to-peer](#) teen traffic safety education campaigns fail because they lack strategic, measurable, achievable, realistic, and time-bound objectives. This [CDC Evaluation Brief](#) offers guidance on writing SMART objectives for public health. **Box 5** provides two examples of campaign goals and their SMART objectives.

Box 5. Campaign Goals and SMART Objectives

Example 1	Example 2
<ul style="list-style-type: none"> ■ Goal: The campaign will increase seat belt use among high school students in the school district. ■ SMART Objective: One year following campaign implementation, observed seat belt use will increase to 55% (from 30% at baseline) among high school student drivers and passengers in two school districts in Northwest Georgia. ■ Non-SMART Objective: Seat belt use will increase by a quarter among high school students in a region of the state. 	<ul style="list-style-type: none"> ■ Goal: The campaign will decrease drunk driving among Latino men in Washington, DC. ■ SMART Objective: Six months following campaign implementation, DC police records will show a decrease of 10% in arrests for driving under the influence among Latino men ages 21-50. ■ Non-SMART Objective: Drunk driving will decrease among Spanish-speaking men in DC.

Practitioners should ensure the campaign objectives and goals are realistic given available resources such as overall campaign budget, timeline for completing the campaign (weeks, months, or years), staff available to support campaign design and implementation, and partners and stakeholders that will be involved in the campaign. They should also consider the cost of other materials, resources and services necessary for the campaign, such as

overhead (printing, telephone, and postage), campaign materials and giveaways, and media buys.

Step 3. Define the Intended Audience

Next, practitioners should identify and define the campaign's intended audience – the group that will receive the messages. First, practitioners can define the intended audience broadly, using [descriptors](#) related to physical characteristics, such as age and sex. Then, the description can be narrowed by identifying groups of people with similarities, such as demographics, occupation, attitudes, geographic area, or behaviors. Practitioners can tailor messages to [audience segments](#), which are subgroups of the intended audience. This [checklist](#) can help identify audience segment qualities such as behavioral, cultural, demographic, geographic, or psychographic characteristics.

Practitioners may conduct an [audience analysis](#) to understand the intended audience. [Making Health Communication Programs Work](#) describes how practitioners can implement research methods (see section titled “Communication Research Methods”) such as focus groups, interviews, or surveys to gather information on the intended audience. These research methods also contribute to formative evaluation (see **Box 6**).

“When doing workshops with transportation practitioners, I like them to develop what I call a persona of a person from the priority group. If the priority group is 18 to 35 year olds who race cars, then let's talk about Bob, the street car racer. What is he like? Who is Bob? How would you describe him to a friend? This is what we call a journey map. Think about when this behavior is occurring so we can understand how to not only reach the intended audience, but reach them when they're most open to hearing our message and in a position to do something about it.”

Craig Lefebvre, Ph.D., M.S., Lead Change Designer, RTI International

Practitioners may learn about secondary audiences, which are groups who influence or have a relationship with the intended audience. For example, parents of teenage drivers are a secondary audience, as they have the ability to influence teenagers' risky driving behavior, such as speeding or distracted driving. The [Checkpoints Program](#) targeted the parents of teenage drivers to decrease risky driving behaviors.

Box 6. Formative Evaluation

[Formative evaluation](#) is research conducted during campaign development. For example, practitioners may pre-test campaign messages and materials to determine if changes are needed before implementing the campaign or piloting the campaign with the intended audience. Formative evaluation may increase the likelihood of the campaign reaching its intended audience.

Step 4. Choose Communication Settings, Channels, and Activities

The next step is to determine how to identify appropriate message settings, channels, and activities to reach the intended audience. Practitioners should use information gathered through the needs assessment and needs analysis (see [Step 1. Assess the Health](#)

[Behavior](#)) to determine when and where the intended audience will be most receptive to receiving the messages.

Settings. Message settings refer to the places, times, or situations within which the intended audience may be most receptive to receiving the messages. Examples include places, such as in the car, bus, home, or work; times, such as in the morning or afternoon; and situations, such as when at a department of motor vehicles.

Channels. Communication channels help focus messages to the intended audience. Communication channels generally occur at five levels:

- **Interpersonal channels:** Refers to messages between two or more people in a trusted and familiar context, such as family members, friends, parents, colleagues, and physicians. The campaign *Tu Salud ¡Si Cuenta!*, designed to increase healthy eating and physical activity behaviors, relied on community health workers to share messages about healthy behaviors directly with the intended audience.
- **Group channels:** This refers to settings within which multiple people in the intended audience, who have something in common, gather. These include clubs, sports events, neighborhood gatherings, workplace meetings, or school events. For example, a [campaign](#) designed to address smartphone use and distracted driving, delivered informational workshops to the intended audience—college students—during college classes.
- **Organizational and community channels:** These messages are distributed by credible and well-known community organizations. Organizations can support the campaign by distributing messages during meetings or through newsletters, for example.
- **Mass media channels:** These include advertisements and public services announcements disseminated via network and cable television, radio, newspapers, billboards, magazines, and mail. Mass media is used to broadly disseminate campaign messages. This [campaign website](#) shows examples of mass media advertisements encouraging healthy behaviors. NHTSA's [Traffic Safety Marketing materials](#) also provide a range of advertisement examples.
- **Interactive digital media:** This includes social media, internet and web programming and design to send targeted messages to the intended audience.

Activities. Campaign activities should match the message settings and channels (see **Box 7** for examples). For example, interpersonal and group channels may include activities such as informal discussion, counseling, or instruction. Organizational and community channels may include community events or gatherings, workplace campaigns, school-based campaigns, or other types of meetings. Activities implemented through mass media channels may include advertisements, news stories, paid programming, or newspaper letters and op/eds. Activities implemented through interactive digital media may include social media, online videos, web sites and advertisements.

Practitioners should research message settings, channels, and activities using data from the needs assessment, needs analysis, and audience analysis. Settings, channels, and activities should match the needs of the intended audience. For example, to increase seat belt use among high school students, the [Teen Traffic Safety Challenge](#) delivered campaign messages in an appropriate setting – high schools – through interpersonal, group, and mass media channels, using presentations and advertisements. **Box 7** provides examples of how theory can guide selection of campaign message settings, channels, and activities. [Phase 3: Develop and Pre-Test Messages](#) provides information about developing messages and determining message settings, channels, and activities.

Box 7. Using Theory to Inform Message Settings, Channels, and Activities

Two behavior change campaigns – [Let’s Clear the Air](#), and a population-based, self-efficacy [message card campaign](#) – were designed to increase compliance with tobacco-free campus policies. Both campaigns applied constructs from the Theory of Planned Behavior when designing campaign messages to address attitudes, subjective norms, and behaviors related to policy compliance. A [short-message services \(SMS\)-based campaign](#) used the Diffusion of Innovations Theory to determine communication channels for influencing adolescents’ sun-related protective behaviors. The theory indicates that social context influences behavior, and adolescents have a high rate of mobile phone ownership and use of SMS for communication. The [Be In the Zone](#) campaign applied the Social Ecological Model (use of the social and physical environment to encourage behavior change) when developing an anti-texting program in high schools.

Step 5. Identify Partners and Develop Partnering Plans

Practitioners should identify and work with partners who have skills and expertise that are appropriate for the campaign. This includes identifying a champion(s) to support the campaign ([Phase 4: Implement the Campaign](#)). **Box 8** lists potential partners and examples of resources they can provide. A [partnering plan](#) can help clarify the roles of partners. The plan should clearly define each partner’s role and expectations, provide a timeline for engagement, and describe plans for ongoing communication. Practitioners and partners should agree upon the information in the partnering plan.

“It’s number one to make sure you plan and make sure you have all the right people at the table while planning.”

LeShaundra Cordier, M.P.H., C.H.E.S., Associate Director of Communication, CDC National Center for Injury Prevention and Control (NCIPC), Division of Overdose Prevention

Box 8. Potential Partners and Examples of Resources Partners Can Provide	
Potential Partners	Examples of Resources
Community organizations, such as hospitals, nonprofits, advocacy organizations	<ul style="list-style-type: none"> ■ Access to the intended audience ■ Resources such as staff, space, or materials ■ Support for conducting campaign activities
State and local government agencies and offices	<ul style="list-style-type: none"> ■ Epidemiological data on the health behavior ■ Access to the intended audience ■ Resources such as staff, space, or materials

Academic researchers or universities	<ul style="list-style-type: none"> ■ Subject matter expertise in behavior change, communications, and evaluation
Advertising agencies	<ul style="list-style-type: none"> ■ Creative expertise in graphic design or message development ■ Access to media channels
Private companies	<ul style="list-style-type: none"> ■ Funding and resources for implementation or sustainability

The potential benefits of partnering on behavior change campaigns include:

- Increased campaign credibility, if the partner is trusted by the intended audience;
- Increased campaign visibility among the intended audience;
- Extended reach of the campaign and increased access to the intended audience;
- Connections to a community champion or community spokesperson; and
- Resources and expertise for campaign planning, implementation, and evaluation.

Step 6. Develop an Overarching Campaign Strategy and Draft Communication and Evaluation Plans

The final step is to work with partners and stakeholders to develop the overarching campaign strategy. The campaign strategy is commonly described in a [creative brief](#). The strategy and creative brief describe the campaign plan, including the intended audience, how the behavior change objectives and goals will be met, message settings, channels and activities to be used, available resources, and partners and their roles. The timeline for campaign activities includes implementation, evaluation, and sustainability.

Practitioners should also develop the following items:

- [Communication plan](#), which describes the communication strategy; a [media plan](#); plans for partnering, messages, materials development, and implementation; evaluation plans; and the associated tasks and timeline.
- [Draft outcome evaluation plan](#), which ensures progress on outcomes is captured.
- [A logic model](#), which describes the campaign’s goal and objectives, inputs, activities, outputs, outcomes, impacts, and contextual factors. The logic model can help “connect the dots” between inputs and activities and outcomes. CDC offers a number of [resources](#) to develop a logic model.

By completing the steps in Phase 2, practitioners can ensure they establish the foundation for a successful campaign. Planning for evaluation during Phase 2 ensures the evaluation activities are matched to the campaign activities, prepares practitioners to determine what is or not working during implementation (process evaluation), and positions practitioners to collect baseline data before beginning campaign activities. [Phase 5: Evaluate the Campaign](#) describes how practitioners can plan and prepare for evaluation.

“We’re human. We tend to get distracted and excited by all the possibilities, but if research tells us anything, it’s that focused campaigns – the ones that focus on their primary goal and know their intended audience inside and out – are the most successful.”

Rachael Record, Ph.D., Associate Professor, School of Communication, San Diego State University



Phase 2 Checklist: Develop a Campaign Plan and Strategy

✓ Develop a Campaign Plan and Strategy

- Determine the health behavior the campaign will address.
- Conduct a needs assessment and needs analysis to describe the health behavior, the gaps, and the appropriate solutions.
- Identify and gather information on existing behavior change campaigns.
- Identify stakeholders who are knowledgeable and available to provide assistance with the campaign.
- Develop campaign goals and objectives that are SMART (Specific, Measurable, Achievable, Relevant, and Time-bound).
- Identify and describe the intended audiences of the campaign.
- Select message settings, channels, and activities that are appropriate for the intended audiences.
- Identify campaign partners and determine how they will be involved during the planning and design phases.
- Develop the overarching campaign strategy.
- Develop a communication plan that describes the plans for developing campaign messages and materials, the plans for partnering and the roles of each partner, and the campaign timeline.
- Develop a logic model for the campaign.
- Develop a draft evaluation plan that describes the intended campaign outcomes.



PHASE 3: DEVELOP AND PRE-TEST MESSAGES



Phase 3 Objective: Develop and pre-test the campaign messages and materials.

In Phase 3, practitioners develop and pre-test campaign messages and materials using information gathered during [Phase 2: Develop a Campaign Plan and Strategy](#).

1. Develop and Pre-Test Message Concepts
2. Develop Messages and Materials
3. Pre-Test Messages and Materials

These steps are adapted from the National Cancer Institute's [Making Health Communication Programs Work](#).

Step 1. Develop and Test Message Concepts

A [message concept](#) is the “overall creative context in which the key messages are presented.” This refers to the ideas that make messages interesting, unique, and memorable to the intended audience. Practitioners can develop message concepts through brainstorming or design workshops with stakeholders and creative professionals. For example, practitioners can engage a creative agency to develop concepts and then review them with a stakeholder panel, or stakeholders and a creative team (including creative directors, graphic designers, illustrators, script writers, copy writers, producers, actors, or musicians) can work together to brainstorm and sketch out message concepts.

Practitioners can use the information gathered during the audience analysis (see [Step 3. Define the Intended Audience](#), in [Phase 2: Develop a Campaign Plan and Strategy](#)) to inform the development of message concepts for the campaign. Practitioners should use their understanding of the audience’s views and methods of communication, including what words the audience and other stakeholders use to describe the behavior, to develop message concepts.

[Frame analysis](#) can be useful when developing message concepts and determining message content and channels. Frames are mental filters that people use to make sense of complex information, constructed by personal beliefs, cultural influences, and other aspects of an individual's character. People frame the same behavior differently, or they can apply multiple frames to the same behavior. For example, people may support seat belt use because they want to protect themselves in the instance of a crash, while others may focus on avoiding fines. Others may view seat belt use as an issue of personal freedom and thus avoid using them. Practitioners can use a positive frame to encourage the uptake of a new behavior and use a negative frame to encourage people to avoid or abandon a behavior.

Concept Testing. After the message concepts have been determined, practitioners should assess what words and images resonate with the intended audience and what other ideas the audience has for campaign messages and materials. This process, called [concept testing](#), helps ensure campaign messages work with the intended audience and provides the information that practitioners need to move to message development. The [Boosting Restraint Norms](#) campaign involved program staff in concept testing. Program staff that are from the community can serve as a peer group to review message content, literacy, and relevance. Similarly, in [Let's Clear the Air](#), a campaign designed to improve tobacco-free campus policy compliance behaviors among undergraduate student smokers, there were four rounds of message testing, including two rounds with an expert panel of reviewers specializing in tobacco, message design, and campaigns.

Step 2. Develop Messages and Materials

After developing and testing message concepts, the next step is to develop the campaign messages and materials. This step includes determining message content and format, reviewing existing materials to determine if existing campaign messages can be adopted or adapted, and developing the messages and materials.

"By the time I get to the materials development and testing, I would already want to know what communication channels I will use in the campaign because it influences the kinds of messages I'm creating and the types of materials I'm developing."

Craig Lefebvre, Ph.D., M.S., Lead Change Designer, RTI International

Practitioners should refer to the decisions made regarding which message settings, channels, and activities align with the intended audience's preferences (see [Step 4. Choose Communication Settings, Channels, and Activities](#), in [Phase 2: Develop a Campaign Plan and Strategy](#), as well as the campaign goals and budget. For example, [interpersonal channels](#) are common in behavior change campaigns and can be cost-effective. [Mass media channels](#), however, can reach more people but are generally more costly. Mass media channels can involve trusted sources or spokespersons, mirroring the benefit of using interpersonal channels, as well as print, broadcast, and digital media. Using a spokesperson can be an effective way to garner attention for your campaign and to lend it credibility and appeal. However, if the campaign uses spokespersons for dissemination, Pam Shadel Fischer, M.A., recommends choosing them carefully: "*If you opt to use a*

spokesperson -- particularly a celebrity -- vet them carefully. You may discover something about that person that suggests they're not right for your campaign."

Using print, broadcast, and digital media channels may hinge on the campaign's budget for communication and dissemination. Depending on the budget, practitioners may choose to use a combination of [paid, owned, or earned media](#) (see **Box 9**).

"Selecting the appropriate channel is critical for reaching your target audience. If you're planning to buy print advertising, [you'll likely find that] people aren't picking up newspapers anymore. So you have to be more specific in your targeting and find out where they're getting their information."

Pam Shadel Fischer, M.A., Senior Director of External Engagement and Special Projects, Governor's Highway Safety Association

Box 9. Paid, Owned, and Earned Media		
Media Type	Description	Examples
Paid Media	Media disseminated through a third party and paid for by the campaign.	<ul style="list-style-type: none"> ■ Print: out of home (banners, billboards, posters, brochures, bus, etc.); ads in publications ■ Broadcast: TV and radio ads ■ Digital: display, email, social media, podcast, and video ads
Owned Media	Media disseminated through channels owned or controlled wholly by the campaign.	<ul style="list-style-type: none"> ■ Print: posters and brochures on site; publications; branded materials ■ Digital: website; email listserv; text messages; social media; podcasts; YouTube channels
Earned/Organic Media	Media disseminated via word of mouth, social media, or media outlets for which the campaign does not pay.	<ul style="list-style-type: none"> ■ Print: press releases; news stories; materials ■ Broadcast: press releases; news stories; PSAs ■ Digital: press releases; news stories; social media

Paid media can be expensive, but can yield instant results, is easy to track, provides control over the content, and can be used to target the audience. Owned media costs less, overall, but there may be some costs such as web hosting and graphic design; staff time to write copy for blogs, tweets and posts; printing materials; and audio and video production. Earned media can increase campaign credibility, reach, and awareness, but it takes time to convince media outlets to report on the campaign and practitioners do not have control over how they repeat the message, leaving room for misrepresentation. This is also the case when members of the public share social media posts about the campaign, referred to as organic social media. It can also be difficult to track media mentions and social media without expensive software services.

Moving from Concept to Message. Messages are the main points of information that the intended audience will hear, understand, remember, and then act upon. Messages should be Concise, Strategic, Relevant, Compelling, Simple, Memorable, Authentic and Tailored. Messages should also include a Call to Action – a clear statement of what the audience

should do after hearing or seeing the message. **Box 10** provides more information on crafting effective campaign messages.

Box 10. Moving from Concept to Message

Concise. Messages must be communicated clearly, quickly, and completely, through both written and spoken communication. They should need no more than one to three sentences in length and capable of being read or spoken in 30 seconds or less.

Strategic. Campaigns should frame a behavior in terms of how it affects the intended audience, including the costs and benefits of changing or failing to change behavior. For example, the [Live Lighter](#) campaign, launched in Western Australia, focused on ‘why’ the intended audience should change their behavior through graphic depictions of “extensive visceral ‘toxic fat’” around body organs, and ‘how’ they could do it by “illustrating small achievable changes in activity and diet.”

Relevant. Messages should apply to the daily lives and concerns of the intended audience. For example, according to one [paper](#), feedback from people who smoke showed that emotionally evocative and graphic advertisements emphasizing the effect of smoking-related illness on quality of life were likely to be more effective than messages that focused on smoking as a cause of mortality.

Compelling. Messages should encourage action or changes in behavior.

Simple. Messages should be rendered in easy-to-understand language that avoids jargon and acronyms, so that they are accessible to the largest number of people.

Memorable. Messages should be easy to recall and repeat, like the simple [Let’s Clear the Air](#) slogan used for the anti-smoking campaign of the same name.

Authentic. Campaign messages are more likely to encourage behavior change if they are authentic. Researchers described how [Let’s Clear the Air](#) campaign messages featured members of the intended audience in the geographic area addressed by the campaign.

Tailored. Tailor messages to the language style or words used by the intended audience. Practitioners can write different versions of the same message by selecting different words and varying the information on the benefits, motivators, barriers, and consequences of the behavior.

Crafting Compelling and Memorable Messages. To make campaign messages more compelling or memorable, practitioners can use appeals and message templates or formats. Appeals are communication strategies that can grab the audience’s attention and persuade people to change their behavior. Two common appeals used in traffic safety are [appeals to reason and emotional appeals](#). Appeals should match the preferences of the intended audience.

Appeals to Reason aim to provide a rationale for adopting a given behavior by giving science-based explanations; using simulations, metaphors, and analogies; and offering practical tips and ‘solutions’ relevant to the audience.

Emotional Appeals use words and images to elicit either negative emotional responses to fears and threats about possible consequences or positive emotions about potential benefits.

Fear appeals are a common type of emotional appeal. For example, in the [Boosting Restraint Norms](#) campaign, formative research showed that the intended audience preferred messages that used a fear appeal. The campaign ultimately used ‘regret’ as a negative emotional appeal. However, not all audiences will respond to this type of appeal.

[Research](#) indicates that fear can be ineffective in campaigns, as people may discount a message to avoid feeling fearful and continue to behave in a fatalistic fashion. For example, a fear-based anti-tobacco campaign may effectively prevent people who do not smoke from starting, but it may not be effective with people who currently smoke, as they may ignore the message to avoid being reminded of the negative health effects. When developing messages, it is also important to consider unintended message effects (see **Box 11**).

“You talk about something people should avoid doing, but in doing so you talk about that behavior a lot. You show people examples of a bad behavior. People think that bad behavior is normal because lots of people are doing it. You create an unintended message effect. People come away with the normative belief the bad behavior is common and therefore acceptable to do. For example, that has happened in substance use campaigns to prevent teenagers from using drugs: they unintentionally depicted drug use as a common behavior.”

W. Douglas Evans, Ph.D., Professor of Prevention and Community Health & Global Health, The George Washington University

Box 11. Lessons Learned from the National Youth Anti-Drug Media Campaign

The goals of the Office of National Drug Control Policy’s National Youth Anti-Drug Media Campaign were to educate youth so they would not use drugs such as marijuana and inhalants, and to persuade youth who occasionally used drugs to quit. The campaign began in 1998 and was the [largest](#) public health advertising campaign in history. It received extensive funding and support from many organizations. Phase 1 of the campaign is referenced as the *Above the Influence* campaign and lasted between 1999 and 2004. An [evaluation](#) of Phase 1 reported that the campaign “had no favorable effects on youths’ behavior and that it may even have had an unintended and undesirable effect on drug cognitions and use.” Researchers suggested two possible explanations. First, youth may have reacted to “threats to their freedom” by increasing drug use. The second idea is that the advertising conveyed an “implicit meta-message that drug use is commonplace;” greater exposure to the messages was associated with a belief among youth that other youths were using drugs. Researchers found that the meta-message might have created a “boomerang effect,” and contributed to youth initiation of drug use.

Message templates or formats refer to the ways that people commonly arrange and organize information. Message formats can be used to make messages more memorable. **Box 12** describes common message formats. Practitioners should consider using multiple message formats, as different formats may resonate with different audience segments, including audience segments that are at differing stages of readiness to change their behavior. Once messages are developed in multiple formats, campaign stakeholders can review them before they are pre-tested with members of the intended audience (Step 3).

Developing Messages and Materials. Practitioners should turn draft messages into collateral, or draft versions of how the messages will be disseminated. This entails adding images, video, or audio to message text to make the message compelling. Practitioners may choose to work with a creative partner, for instance, an ad agency. Practitioners should ensure messages and materials are appropriate for communication channels.

Box 12. Common Message Formats

27/9/3. Used in crisis communications, this message format keeps messages concise by restricting message length to 27 words, which can be delivered in 9 seconds, and include 3 points.

Ill, Blame, Cure, Consequence. This message format creates a narrative structure using a medical metaphor. Ill shows that a problem exists; blame shows who or what is responsible; cure shows how the problem can be solved; and consequence describes the result of implementing a cure. An example is the U.S. Forestry Services admonition '[Only You Can Prevent Forest Fires.](#)'

Political Message Quadrant. Used by political strategists, this message format focuses on answering four questions (adapted for behavior change campaigns): 1) What should the campaign tell the audience about the behavior to be changed? 2) What should the campaign tell them about those who oppose that change? 3) What will those who oppose that change tell the audience about the behavior they support? 4) What will those who oppose that change tell the audience about the behavior change the campaign supports?

Using Existing Messages from Existing Campaigns. To save resources and time, practitioners should determine whether messages from existing campaigns can be used (if an existing campaign focused on a similar behavior). Frame analysis and audience analysis can help to assess whether messages from another campaign will work for a new audience. Practitioners can ask partners to review existing messages, and conduct pre-testing to assess if messages from prior campaigns will work. If they do not work, the messages will need to be adapted or refined. If there are no similar campaigns or the existing messages will not resonate with the audience, then it will be necessary to develop new messages.

Step 3. Pre-test Messages and Materials

The next step is to test messages with the audience to ensure the messages resonate and avoid misinterpretation. [Focus groups](#) are ideal for testing messages. Practitioners can ask members of the audience about the actions they are likely to take after exposure to the messages; their answers will help them assess the likelihood that messages will encourage behavior change. Practitioners should ask about the audiences' media preferences and trusted sources to confirm message content and format. Stakeholders can review draft materials before audience pre-testing; this may help to avoid images that may be offensive or detract from message intent. Practitioners can make adjustments based on the pre-test.

"It's important to have someone with expertise vet the messages, actions, and message channels, and then to test your messages to make sure they are clear and actionable for your intended audience."

LeShaundra Cordier, M.P.H., C.H.E.S., Associate Director of Communication, CDC National Center for Injury Prevention and Control (NCIPC), Division of Overdose Prevention



Phase 3 Checklist: Develop and Pre-Test Messages

✓ Develop and Pre-Test Messages

- Identify how the health behavior is currently framed by the intended audience.
- Develop message concepts, including words and images that are appropriate and memorable for the intended audiences.
- Test the message concepts with the intended audiences.
- Map the message concepts to the message settings, channels, and activities selected during Phase 2.
- Determine what media channels will be used to disseminate the messages.
- Consider whether existing messages from other campaigns can be adopted or adapted for the campaign.
- Ensure that the campaign messages are concise, strategic, relevant, compelling, simple, memorable, authentic and real, and tailored, and include a call to action.
- Develop multiple formats for each campaign message.
- Pre-test the campaign messages using qualitative or quantitative methods.
- Revise and finalize the campaign messages and materials following the pre-test.
- Involve partners and stakeholders in developing and testing message concepts, developing messages and materials, and pre-testing messages and materials.



PHASE 4: IMPLEMENT THE CAMPAIGN



Phase 4 Objective: Launch, manage, and monitor the campaign during implementation.

Once planning and development are complete, it is time to implement the campaign. Phase 4 involves the following steps:

1. Launch the Campaign
2. Manage the Campaign
3. Monitor the Campaign and Conduct a Process Evaluation
4. Engage Partners during Implementation

Step 1: Launch the Campaign

The campaign launch marks the beginning of implementation when the campaign is introduced to the intended audience. Traffic safety practitioners should establish implementation plans prior to the campaign launch, describing activities that will occur, the timeline, the people responsible for carrying out activities, resources required, and partner engagement. Implementation plans should outline community assets that can be leveraged, such as partners and resources that can support the campaign launch, management, and monitoring. [Phase 2: Develop a Campaign Plan and Strategy](#) provides information on developing these plans. When planning the launch, consider timing and duration; whether or not there will be a kickoff event and media involvement; which stakeholders will be involved; and costs.

Timing for the Launch. Practitioners should determine a campaign launch date. Consider other events that may be going on within the community or region because the campaign may receive less attention. According to the [Manual for Designing, Implementing, and Evaluating Road Safety Communication Campaigns](#), it may be preferable to avoid launching a campaign on a Friday, Saturday, or in the days preceding a holiday – days the campaign is less likely to garner media attention. However, if media attention is not an important consideration, then any day may be appropriate for launch.

Hold a Kickoff Event. A kickoff event, also called a launch event, is a formal, planned event that introduces the campaign to the community. A kickoff event can be useful for calling attention to the campaign and building enthusiasm and awareness among the intended audience. A kickoff event can also help attract media attention to the campaign, if desired. However, not all campaigns will begin with a kickoff event. Some campaigns can begin quietly, with little or no attention from the media or the intended audience. Sometimes a kickoff event may infringe on a campaign's effectiveness. For example, implementers of [Let's Clear the Air](#), a behavior change campaign designed to increase undergraduate students' compliance with a tobacco-free campus policy, did not hold a kickoff event because researchers felt it would have threatened the validity of the evaluation design, which tested the effectiveness of print-based campaign messages for increasing policy compliance behaviors. Similarly, the [Battle of the Belts](#), a peer-to-peer campaign to promote seat belt use among high school students in southwest Florida, has been running for 10 years and does not host a large kickoff event each year. Instead, campaign partners meet with school safety officers to deliver an initial packet of information that includes planning and implementation guidance to each school participating in the campaign.

Involve the Media. The media can contribute to a successful kickoff event. [Earned media](#) – media that the campaign budget did not pay to create – can be beneficial because it increases exposure to the campaign among the community. However, it is not always possible to control what the media says about the campaign. To ensure accuracy, practitioners can develop media kits that include, for example, a press release, copies of campaign materials (both print and digital), contact information of someone who can answer questions, and other important background information. Maximize media coverage by keeping media partners aware of the campaign and kickoff plans.

Determine the Launch Period. The launch period refers to the time period in which the campaign can begin. The launch period may vary in length, and the optimal duration for the launch period will differ for each campaign. However, a kickoff event is typically one day in duration. Practitioners should determine plans for the launch period and campaign duration when the campaign is designed, prior to implementation, and consider the resources available to support implementation ([Phase 2: Develop a Campaign Plan and Strategy](#)).

Involve Partners, Stakeholders, and the Community. It is important to involve all campaign partners and stakeholders in the campaign launch and other implementation activities. Everyone should be aware of the launch plans and associated activities. The launch also represents the start of engaging the intended audience. Be sure that there are clear plans for how to engage the community and intended audience.

Consider Associated Costs. The costs of the campaign launch will vary, depending on whether the campaign begins quietly or with a kickoff event, the scope and scale of the kickoff event, and whether the campaign provides free materials to the intended audience. In [Boosting Restraint Norms](#), campaign implementers provided the audience with free booster seats. In other campaigns, implementers offered free food, snacks, prizes, or rewards. For example, [Battle of the Belts](#), a competitive student-run campaign to increase seat belt use, offered prizes or rewards to schools with the highest rate of seat belt use,

greatest improvement in seat belt use, and best campaign materials (such as best poster or best public service announcement). Practitioners should account for all costs, including costs for the kickoff event and associated campaign materials, in the overall campaign budget. The campaign budget should be determined during [Phase 2: Develop a Campaign Plan and Strategy](#).

Step 2: Manage the Campaign

Once the campaign has launched, daily campaign management is necessary. Campaign management is similar to project management: it involves ongoing planning, execution, and oversight to ensure the campaign strategy, activities, and schedule established during [Phase 2: Develop a Campaign Plan and Strategy](#) are followed.

Campaign Management Activities. Campaign management encompasses oversight of activities, staff, and budget. Examples of key management activities include:

- Monitor and maintain campaign activities using all established channels;
- Oversee campaign staff and partners;
- Track the budget and manage costs;
- Identify, assess, and solve problems as they arise;
- Ensure adherence to the implementation timeline;
- Oversee ongoing marketing and promotion;
- Coordinate and control the release of campaign materials;
- Gather feedback on implementation – for example, by measuring audience satisfaction (process evaluation); and
- Revise plans and operations as needed.

Implementation is a continual process, and management activities will continue in the period following campaign launch. This is because not all campaign materials, messages, and activities are introduced at the launch – some may be introduced later in the campaign. Follow and refer back to the timeline for the campaign. This will guide the timing and resources required for specific campaign events. It is also important to note that the duration of the campaign and required management activities will vary. Some campaigns are completed over several weeks or months, while others last for multiple years.

“We need to have more sustainable, longer-running campaigns because we’re fighting that addiction/dopamine factor and falling back into these habits, but we need to get messages a longer shelf life and that is about consistency.”

Jennifer Smith, Founder of StopDistractions.org, reflecting on a texting and driving campaign

Involve Partners in Campaign Management. Practitioners should keep all campaign partners and stakeholders apprised of the campaign schedule, implementation plans, and management activities. Practitioners should refer to the partnering plan developed during

Phase 2: Develop a Campaign Plan and Strategy. In some campaigns, partners and stakeholders may assume responsibility for daily management activities. Even so, the campaign implementers should maintain some oversight of campaign management. For example, the community-based campaign [Boosting Restraint Norms](#) engaged local partners to deliver messages and materials to the intended audience. This enabled the campaign implementers to avoid allocating excessive funding to staffing, although they still engaged with partners daily to maintain a strong working relationship and ensure they were disseminating campaign materials.

Plan to Address the Unexpected. It is likely that unexpected events or circumstances will arise during implementation, particularly with campaigns that span weeks, months, or years. For example, implementers may find it challenging to encourage attendance at planned campaign events. Practitioners can address challenges creatively by finding unique ways to reach the intended audience. Some campaigns have found unique strategies for getting information to the intended audience – for example, live streaming events and using other web-based media, such as Facebook, LinkedIn, and Instagram.

Step 3: Monitor the Campaign and Conduct a Process Evaluation

Monitoring is “the process of tracking campaign implementation, progress towards campaign goals and objectives, and external factors relevant to the campaign, such as new opportunities and risks.” Monitoring is essential to understanding whether the campaign is meeting its goals and can help assess whether campaign resources are used effectively. For example, two behavior change campaigns involved staff in ongoing monitoring activities. For [Boosting Restraint Norms](#), staff were on the ground to monitor campaign activities and gather evaluation data by completing seat belt observations. For [Let’s Clear the Air](#), staff monitored implementation by using an Excel checklist and walking around campus to confirm whether campaign posters remained intact in the intended locations. Staff checked each location twice per week and replaced missing or damaged posters.

Monitoring activities can also contribute to the [process evaluation](#). Using monitoring data, a process evaluation provides information about how the campaign is implemented and monitors its functioning (see **Box 13**). When implementing a process evaluation, some [key components](#) include assessing: context in the community; reach of the campaign; dose delivered (of the campaign); dose received; fidelity (extent to which the campaign was delivered as intended); and implementation (which incorporates components of reach, dose delivered, dose received, and fidelity). Process evaluations are important to conduct during implementation. Process evaluations answer [questions](#) such as:

- Who is the campaign reaching?
- What campaign materials are being distributed?
- To what extent is the campaign being implemented as intended ([fidelity](#))?
- Are the campaign messages appropriate and effective? What is the duration of exposure to messages? What is the media coverage?

- What is the audience’s reaction to the campaign?
- What are the barriers and facilitators to implementing the campaign?
- Does the campaign have sufficient resources and staff?
- Is the campaign on schedule?
- Are partners and stakeholders involved in the campaign in the ways to which they committed?
- What adjustments should be made to the campaign plans, messages, or materials?

“It is really valuable to have information feeding back from the evaluation team in terms of how well the campaign is being implemented. Give partners feedback as you go along, so you do not get to the end of one or two years of running a campaign and discover it did not work at all. The benefit of having data along the way is so you can tell if no one is seeing the ads, and then changing the ad buy or changing the ads if they are not memorable. If it turns out no one is seeing the ads, a campaign can’t be effective.”

Laura A. Gibson, Ph.D., Research Assistant Professor, Perelman School of Medicine, University of Pennsylvania

Prior to implementation, practitioners should develop plans for monitoring and conducting a process evaluation. Based on information from these activities, it may be necessary to make mid-course adjustments to the campaign. Campaigns evolve along with changes in society, audiences’ needs, and new technology. Additionally, certain plans may not work as intended. If this happens, it is acceptable to make changes in order to meet objectives. For example, in the campaign, [Let’s Clear the Air](#), implementers made mid-course adjustments to the locations of campaign signs when, in the semester prior to implementation, the university removed existing message boards that were going to serve as sign locations. To adjust, the implementers installed yard signs on walking paths and replaced selected message boards. They also posted campaign signs in additional buildings, beyond those initially intended, to compensate for signs that were removed.

Box 13. Campaign Examples of Process Evaluation

The [Teen Traffic Safety Challenge](#) was a peer-to-peer campaign designed to increase safety belt use. High schools in Denver, Colorado received a toolkit with ideas for activities and programs to increase seat belt use among teen drivers and passengers. The research team conducted a process evaluation by collecting input from students and other participants, which helped them to make changes to the toolkit and improve the campaign.

The [Be In the Zone Teen Motor Vehicle Safety Program](#) was an anti-texting program implemented in Tennessee high schools. Researchers conducted a process evaluation using surveys administered to teens. The surveys asked teens about their experiences with one program component, a hospital-based experiential motor vehicle safety education program. Teens rated their experiences and provided suggestions.

Information sources that can contribute to process evaluation include, for example, tracking forms about activities, public inquiries and requests, social media, and website traffic.

“People are often scared to change their campaign design – they have a plan and want to see it through. But if your end goal is to be successful, then you should adjust and adapt during implementation.”

Emanuel Robinson, Ph.D., Senior Study Director, Westat

Step 4: Engage Partners during Implementation

It is important to maintain a good relationship with partners and stakeholders during implementation. Partners can assist with management and monitoring, and offer expertise unique to the campaign. Partner engagement strategies include scheduling routine phone calls or meetings to discuss activities and results; demonstrating an interest in partners’ work; and involving partners in campaign activities. Once the campaign is underway, new partners may step in and some partners may no longer have a role. Practitioners should refer to the partnering plan from [Phase 2: Develop a Campaign Plan and Strategy](#).

“Community partners should not only be involved in designing the campaign, but also with implementing the campaign. They will often know where the barriers and opportunities are within the community.”

Gary Kreps, Ph.D., University Distinguished Professor and Founding Director, Center for Health and Risk Communication, George Mason University

For community-based campaigns, it is crucial to have one or more champions (an individual, organization, or both) who support the campaign and connect campaign messages and materials to the audience. Having a champion helps address the challenge of community support during implementation; however, sometimes it can be challenging to identify the right champion. It may take time, but plan on speaking with partners to learn about individual and organizational strengths that can support the campaign. If a current partner is unable to champion the campaign, they may be able to suggest an alternative.

Box 14 provides campaign examples of community champions.

Box 14. Campaign Examples of Community Champions

[Boosting Restraint Norms](#). When preparing for implementation, practitioners realized their intended champion, the health department, was not equipped to serve in this role. With time and effort, the implementers identified a new entity, the local WIC office, to champion the campaign.

[Battle of the Belts](#). Every year, high school students in Florida design initiatives to promote seat belt use among students. An adult champion in each school guides planning and implementation.

[Be In the Zone Teen Motor Vehicle Safety Program](#). This peer-to-peer, educational campaign is designed to increase teen awareness of risky driving behaviors. The campaign is implemented in schools and relies on a champion (typically a teacher) to provide implementation support.

“Take advantage of the networks you have. Just because something hasn’t been done before doesn’t mean that people won’t help a good cause. I learned that people want to help and want to support.”

Rachael Record, Ph.D., Associate Professor, School of Communication, San Diego State University



Phase 4 Checklist: Implement the Campaign

✓ Implement the Campaign

- Refine and use the plans established during Phase 2 to guide campaign implementation, management, and monitoring.
- Identify community assets that can be leveraged to support implementation.
- Determine the campaign launch date and the duration of the launch.
- Determine if the campaign will begin quietly or if there will be a campaign kickoff event.
- Determine if and how the media will be involved in the campaign kickoff event.
- Identify the costs and materials associated with campaign launch and implementation.
- Determine what types of ongoing campaign management and monitoring activities are required.
- Prepare and plan for unexpected events during campaign implementation, if possible.
- Determine when and how the process evaluation be implemented.
- Determine the specific roles and activities of partners, stakeholders, and community members during campaign launch, management, and monitoring.
- Identify how to promote partner engagement and communication during implementation.
- Identify the community champion that will support the campaign.



PHASE 5: EVALUATE THE CAMPAIGN



Phase 5 Objective: Evaluate the campaign.

During Phase 5, practitioners evaluate the campaign. Practitioners should follow these six steps to conduct outcome evaluation:

1. Engage Stakeholders
2. Describe the Campaign
3. Focus the Evaluation Design
4. Gather Credible Evidence
5. Justify Conclusions
6. Ensure Use of Evaluation Findings and Share Lessons Learned

These steps are based on the Centers for Disease Control and Prevention (CDC) [Framework for Program Evaluation in Public Health](#), and informed by the National Highway Traffic Safety Administration (NHTSA) [The Art of Appropriate Evaluation: A Guide for Highway Safety Program Managers](#). Each step is connected, and the early steps provide the groundwork needed to execute subsequent steps. The Art of Appropriate Evaluation from NHTSA also provides guidance for traffic safety practitioners.

[Evaluation](#) is defined as “a systematic method for collecting, analyzing, and using data to examine the effectiveness and efficiency of programs and, as importantly, to contribute to continuous program improvement.”

Different [types of evaluations](#) can be conducted at different stages during a behavior change campaign. [Formative evaluation](#) is research conducted during campaign development (before the campaign begins) to provide information about whether changes are needed before implementation. [Phase 2: Develop a Campaign Plan and Strategy](#) discusses formative evaluation. [Process evaluation](#), is conducted during implementation to provide information about whether the campaign was implemented as intended. [Phase 4: Implement the Campaign](#) discusses process evaluation and its key components.

[Outcome evaluation](#) measures the short-term and intermediate effects of the campaign on the intended audience. Outcome evaluation can answer questions about whether the campaign met its intended objectives and goals. Practitioners should create a draft outcome evaluation plan, as discussed in [Phase 2: Develop a Campaign Plan and Strategy](#).

[Impact evaluation](#) measures the long-term effects of the campaign. This type of evaluation is appropriate for a mature or long-running program or campaign. It assesses to what extent outcomes can be attributed to the campaign, ruling out other plausible factors.

Step 1. Engage Stakeholders

Practitioners should convene stakeholders and partners that will be involved in the evaluation (see [Phase 2: Develop a Campaign Plan and Strategy](#)). For example, a behavior change campaign in high schools may involve school administrators, teachers, parents, and students, while a mass media campaign on motor vehicle crashes may involve the [state highway safety office](#) to obtain archival data on crashes.

Common methods for engaging stakeholders in evaluation include:

- Key informant interviews with campaign staff, partners, and community members.
- Focus groups with people affected by the campaign to gather in-depth information about their experiences. For example, a key first step in developing the [Text4baby](#) campaign was conducting discussion groups with women in different cities to understand if they would use a text messaging service like Text4baby.
- Advisory groups with individuals who can provide input on research questions, data sources, and methods.

Practitioners may also consider engaging stakeholders with evaluation expertise to conduct the evaluation. Practitioners with limited experience with or resources for evaluation may consider identifying a partner who can provide evaluation expertise, such as faculty, staff, or graduate students from a local college or university, or a retired practitioner.

Step 2. Describe the Campaign

The second step is to describe the behavior change campaign. Practitioners should use the logic model and SMART objectives developed during [Phase 2: Develop a Campaign Plan and Strategy](#). Practitioners should be able to answer these questions:

1. What specific behaviors is the campaign seeking to change?
2. What are the campaign's goals and [SMART objectives](#)?
3. What campaign activities will achieve these goals and objectives?
4. What are the expected effects of the campaign over time (immediate, long-term)?
5. What resources are available to design and implement the campaign (funding, time, talent, etc.)?

6. How does the community context impact the campaign (geographic, policy, social and economic factors)?
7. What are the objectives of the evaluation?

Step 3. Focus the Evaluation

To focus the evaluation, practitioners should revisit the draft outcome evaluation plan developed during [Phase 2: Develop a Campaign Plan and Strategy](#). This plan should describe the [evaluation approach](#) and account for what can be realistically accomplished given available resources and time. Practitioners should consider how the evaluation plan will be implemented and by whom and the methods that can be used to answer the research questions. There are three types of evaluation designs that may be appropriate for an outcome evaluation of a campaign (see **Box 15**). Practitioners should also think about *users* (who will receive evaluation findings) and *uses* (how findings will be used).

Practitioners should also develop research questions such as:

- Was the campaign implemented as planned?
- Was the campaign effective?
- How much of the observed change in behavior can be attributed to the campaign?
- Is increased exposure to the campaign associated with an increase or decrease in the health behavior?
- What aspects of the campaign were most effective or least effective?
- What are the impacts of the campaign?
- What were the barriers and facilitators that impacted the campaign?

Box 15. Outcome Evaluation Designs

[Experimental designs](#) are the “gold standard” in evaluation. Random assignment creates two groups (intervention and comparison) that have similar characteristics, and any changes detected can be attributed to the campaign. However, this design may not be possible, practical, or cost-effective to employ.

[Quasi-experimental designs](#) use pre-existing or self-selected groups instead of random assignment to create two or more study groups (at least one intervention and comparison group). Because the groups are not randomly created, observed differences may be explained by other (confounding) factors.

[Pre-experimental designs](#) have one group – the intervention group. One type of pre-experimental design is the [single group post-test](#), where data are collected from the intervention group once, after the campaign. The [single group pre- and post-test](#) collects data twice, before and after the campaign. Data should be collected under similar conditions (from the same person, using the same measures, and at the same time of day or time of year). Post-test data collection should also allow enough time for the campaign to have an effect, but not so much time that campaign effects are influenced by other factors, such another campaign or a new policy.

Step 4. Gather Credible Evidence through Data Collection and Analysis

“Not every evaluation ends up in a peer-reviewed journal, but the important part about evaluation is, does it teach planners something that they can use for the next iteration of the campaign? That’s the bottom line.”

Craig Lefebvre, Ph.D., M.S., Lead Change Designer, RTI International

Next, practitioners should collect information that provides the evidence needed to assess the campaign’s effectiveness. To do this, practitioners should develop or identify indicators, determine data sources, consider data quality and quantity, and gather data.

Develop or Identify Indicators. [Indicators](#) are used to collect data in an evaluation. Evaluations have multiple indicators that connect to the campaign logic model. The CDC [Framework for Program Evaluation](#) describes how to use the campaign’s logic model to define a set of indicators. Practitioners may be able to use validated indicators, depending on the campaign design and evaluation plan. Determine whether validated measures can be used before developing new measures and consider the timeframe for data collection (for example, before and after the campaign, monthly, annually). Examples of outcome indicators in traffic safety evaluations are the number of crashes, injuries, and fatalities using crash data or injury surveillance data.

“Be mindful, really mindful, about what you actually think is going to change, and what your intervention is going to change, and select measures based on that. It can also be helpful to have people within the intended audience review the indicators. Often, the campaign planner is not a member of the intended audience. For example, adults are the ones implementing campaigns around safe teenage driving, but they are not themselves teenage drivers. It is important for the intended audience to look at the measures because they are likely to catch issues with how the information is presented and what is being asked.”

Laura A. Gibson, Ph.D., Research Assistant Professor, Perelman School of Medicine, University of Pennsylvania

Determine Data Sources. Data sources may include observational data (recording behaviors, such as use of seat belts or mobile devices), people (key informants, community partners, policy makers, the public), and archival data (police crash records or injury surveillance data). The Federal Highway Administration describes [data sources](#) that can be used for campaigns with different objectives. Federal regulations require evaluations involving [human subjects](#) to be reviewed by an [institutional review board](#).

The data source affects the strength of evaluation findings. For example, in a behavior change campaign to increase seat belt use, practitioners can assess the outcome measure (seat belt use) by collecting observational data or self-reported data. Observational data can produce accurate estimates but must involve trained data collectors (this approach is used in the [National Occupant Protection Use Survey](#)). Asking people to self-report seat belt use may be less resource intense but may result in under- or over-reporting and [bias](#) (people may report that they do wear their seat belt because it is the socially desirable response).

Box 16 presents examples of indicators and data sources used in two campaigns.

Box 16. Examples of Indicators Used in Two Traffic Safety Campaign Evaluations in the U.S.			
Campaign	Primary Indicator	Data Source	Primary Outcome
<i>Battle of the Belt Program</i> : A peer-to-peer, school-based campaign designed to empower teens to take responsibility for proper seat belt use.	Seat belt use among drivers and front and rear passengers arriving at school during morning hours.	Seat belt observations conducted at participating high schools at baseline (before activities) and follow-up (after activities).	Significant increases in seat belt use for drivers and front and rear passengers; drivers and passengers were belted in 35.5% of observations at baseline and 49.3% at follow-up.
<i>Be in the Zone Teen Motor Vehicle Safety program</i> : An education campaign to increase awareness of the dangers of distracted driving and promote safe driving behaviors among high school teens.	Knowledge, attitudes, and behaviors of teenagers regarding texting while driving.	Web surveys of teenage drivers at baseline and follow-up, and observations of teen and adult drivers in locations just outside of participating schools.	The observed proportion of drivers texting decreased from 13% to 9% (observations) and the self-reported proportion of teens who did not text while driving in the last 7 days increased from 42% to 56% (survey).

Monitor Data Quality and Quantity. CDC defines [high quality data](#) as “reliable, valid, and informative for their intended use.” Factors that affect data quality include the data collection instruments, process for collecting data (it should be systematic), data collector training, management of data, data cleaning, and data coding for analysis. When considering data sources, and data quality and quantity, practitioners should minimize burden among participants by collecting only information that is needed.

Gather Data. Practitioners may collect quantitative and qualitative data before, during, and after the campaign. Quantitative data can be collected using a survey, for example. Qualitative data can be collected through interviews and focus groups, and can answer important “why” questions regarding campaign effectiveness. A mixed methods evaluation integrates both types of data and can provide the most robust answers to study questions.

“Make sure staff are trained and know how to conduct the survey and on-site monitoring. One of the first things I did at baseline for Boosting Restraint Norms was to walk around and watch staff collect data and then give them pointers. It was really important for me to get it right the first time and that staff were asking the questions the way we had written them and tested them.”

Tyra Bryant-Stephens, M.D., Medical Director and Founder, Community Asthma Prevention Program, CHOP

Store Data Securely. Practitioners should consider how they will store, manage, and share the evaluation data gathered, and whether agreements must be in place to securely transfer data to other entities.

Step 5. Justify Conclusions

Use the data collected to develop and justify conclusions. Practitioners can analyze data to create recommendations about the next steps for the campaign, including whether the campaign should be changed, scaled, or ended. CDC offers [guidance](#) for analyzing evaluation data, including developing a data analysis plan; analyzing and synthesizing data; discussing limitations; and determining significance of the findings. Practitioners should share findings with campaign stakeholders, and partners should agree that evaluation conclusions are justified by the data.

Step 6. Ensure Use of Evaluation Findings and Share Lessons Learned

The next step is to [ensure use](#) of evaluation findings and share lessons learned. CDC [describes the five elements of ensuring use](#) of evaluation findings:

1. Design: A clear evaluation design will ensure stakeholders know what to do with the evaluation findings when they are available.
2. Preparation: This involves staying in contact with partners throughout the evaluation to ensure that findings can be used for decision-making and program improvement.
3. Feedback: Ensuring communication about the evaluation among partners helps create an atmosphere of trust among stakeholders.
4. Follow-up: Technical support for partners during and after the evaluation can support appropriate use of evaluation findings and interpretation of results.
5. Dissemination: Evaluation findings and lessons learned should be communicated in a timely and unbiased manner. CDC has a [checklist](#) for writing effective reports.

Box 17 describes evaluation challenges and lessons learned from other campaigns.

Box 17. Evaluation Challenges and Lessons Learned

Consider the effect of confounding factors, which are external to the campaign, as they may affect evaluation results. Examples include a new policy, highway safety improvements, and other campaigns. These factors make it difficult to determine if a campaign has impacted traffic injuries and fatalities. Using an experimental design can limit the influence of confounding factors.

Use objective data rather than self-reported data when possible. Objective data may include surveillance data, behavioral observations, and electronic health record data. Examples of self-reported data include a person's recollection of campaign messages or behaviors. Relying on self-reported data can be limiting because people may under or over-report behaviors.

Cost effectiveness analyses can inform stakeholders about whether the campaign was worth the investment. A [cost-effectiveness analysis](#) can measure the campaign's cost and the savings associated with behavior changes related to outcomes such as life expectancy.

Be realistic about evaluation design given available resources. Few traffic safety practitioners have the resources to conduct a randomized controlled trial. Develop an evaluation plan that is appropriate for the campaign, and work towards an *optimal* rather than *ideal* evaluation.

Emphasize the importance of evaluation to campaign stakeholders, so that they support investing time and resources into designing and conducting an evaluation.



Phase 5 Checklist: Evaluate the Campaign

✓ Evaluate the Campaign

- Engage stakeholders in the evaluation of the campaign.
- Describe the campaign using the logic model and SMART objectives established during Phase 2.
- Outline the research questions that the evaluation will address.
- Determine what evaluation design will be used.
- Identify the evaluation indicators and ensure they connect to the logic model.
- Determine what data sources and data collection methods will be used.
- Determine whether an institutional review board needs to review the data collection procedures and protocols.
- Establish data collection and data security procedures.
- Identify conclusions, implications, and recommendations from the data collected.
- Ask stakeholders to review the evaluation findings.
- Share the evaluation findings and lessons learned broadly.