



# A How-to Guide for Conducting a Statewide Roadside Survey of Alcohol and Other Drugs

Roadside surveys allow estimates of alcohol and drug prevalence of drivers on the road. NHTSA has conducted several voluntary and anonymous National Roadside Surveys and a statewide survey in collaboration with Washington State before and after it legalized the use of recreational cannabis.

Having estimates of prevalence of alcohol and other drugs among drivers in a State is an important component of an impaired-driving program. Roadside collections of biological samples are the best way to measure the number and proportion of drivers with alcohol and other drugs in their systems *while they are driving*. They provide direct information about alcohol and drug prevalence in drivers at a given point in time, and if repeated, reveal trends in alcohol- and drug-positive driving.



NHTSA created a how-to guide for States interested in conducting their own statewide surveys of alcohol and drug prevalence among drivers, titled *A How-to Guide for Conducting a Statewide Roadside Survey of Alcohol and Other Drugs*. It is intended as a primer for State officials, project managers, and researchers on the components needed to conduct a quality statewide study. The guide describes how to execute a study from start to finish and addresses the following topics.

## Is a Roadside Study the Right Approach for the Question of Interest?

The guide begins with a discussion of the kinds of research questions a roadside survey can answer, and those that it cannot. Roadside surveys estimate prevalence of people driving positive for alcohol or other drugs. A positive test reveals the presence of a substance, but it does not allow us to know if the person was impaired by the substance. As

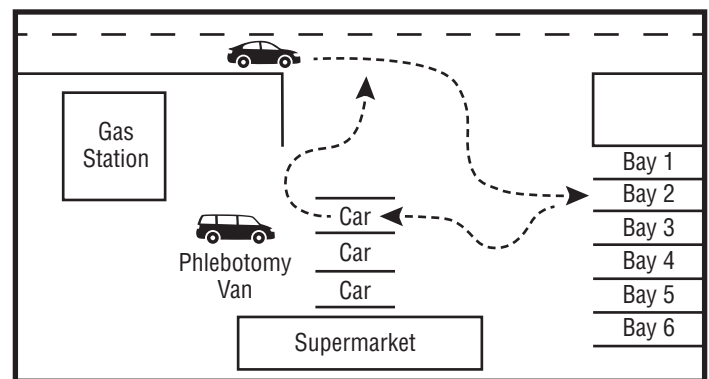
such, roadside surveys do not provide direct estimates of the incidence of impairment by drugs, nor do they provide information for estimating crash risk.

## Developing a Budget and Data Collection Plan

The guide explains the steps to create a budget including the cost factors to consider, such as personnel costs, travel, and equipment.

The guide has information on toxicology testing for drugs, how the process operates, and drugs commonly of interest in impaired-driving research. There is information on developing a data collection and analysis plan including how to determine needed sample sizes to allow for meaningful data, and basic information on standard statistical analyses.

The guide also presents instruction on choosing sites across the State, and how to scout and select specific data collection locations. It discusses the need to address the safety of the staff and survey participants. Study protocols for safety officers should be carefully developed in coordination with both law enforcement and legal experts. Participating law enforcement agencies must agree the data collection event is for traffic safety research and not a strategy to arrest potentially impaired drivers.



The plan must also ensure compliance with State legal concerns and ensure privacy of participants.

## Developing Protocols

Conducting a roadside survey is a complex effort with many logistical challenges. Details are key, and it is crucial to follow standard protocols at all locations, and with all drivers, yet be flexible for anything that could happen. The guide provides step-by-step information on the logistics of traveling to data collection sites, including packing and transporting equipment, and preparing for data collection. Data collectors will interact with the public, thus, the guide has important guidance for risky situations, such as ensuring that an impaired driver gets safely home.



While the guide provides extensive detail, it is only a starting point, and the parameters and protocols appropriate for a given State must be developed in close consultation with experts and key stakeholders including law enforcement and traffic safety offices. Importantly, Federal, State, and local laws and regulations may affect how some of the information in the guide may be implemented for a given location.

## Data Analyses and Reporting Results

The guide discusses types of data analyses and illustrates how results can be presented. It covers standard components of a research report and stresses the need to present the results without going beyond what the information supports.

Drug Category	Daytime			Nighttime		
	%	N	95% CI	%	N	95% CI
<b>Wave 1</b>						
THC-positive	7.8	23	[5.8, 10.4]	17.5	109	[14.0, 21.7]
<i>THC-positive only</i>	4.6	11	[3.5, 6.0]	10.5	69	[7.4, 14.6]
<i>THC-positive plus any other drug</i>	3.2	12	[1.3, 8.0]	7.0	40	[4.6, 10.7]
Illegal only	2.2	8	[0.7, 6.6]	2.5	14	[1.5, 4.3]
Medications only	13.1	38	[10.3, 16.4]	17.4	102	[13.1, 22.6]
Total drug-positive	23.0	69	[16.8, 30.8]	37.9	226	[31.7, 44.6]
Total drug-negative	77.0	202	[69.2, 83.2]	62.1	411	[55.4, 68.3]

CI=Confidence Interval

## Examples to Customize

The guide includes examples of language that can be used with drivers, from initial interaction and throughout the survey. Several types of consent forms are provided and can be customized for use.

After reading this guide, the reader should have acquired an understanding of the scope of activities to conduct a comprehensive survey and the need to include experienced professionals in the planning, data collection and analysis activities.

## The Full Report Citation:

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