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Workshop #13. Environmental Health, Energy, and Transportation: Bringing Health to the Fuel Mixture

Event Date: November 29, 2007 - November 30, 2007

Environmental Health, Energy, and Transportation: Bringing Health to the Fuel Mixture

Please click here to view working agenda

Location: National Academies Auditorium, 2100 Constitution Avenue, N.W. Washington, DC

Transportation is a major part of modern life, with the average American traveling 14,500 miles and spending nearly 14 days per year in transit according to the 2001 National Household Travel Survey. The vast majority of time traveled is via personal motor vehicle (86.6%). As the number of miles and hours traveled have rapidly increased, the impact of transportation on health and the environment has become increasingly evident. Public health can be impacted by transportation in many ways, including injuries from motor vehicle accidents, asthma and cardiovascular disease related to declining air quality, and obesity related to a sedentary lifestyle as we increasingly rely on motor vehicle transportation.

Health problems resulting from human exposure to by-products of transportation related energy production are well documented. Recent reports suggest that individuals who live within 100 yards of a major road have an increased likelihood of developing asthma or cardiovascular disease. Gasoline from fossil fuels contains over 500 chemicals, and ascertaining which components are related to adverse health effects will require additional research. Some of these chemical are known toxins, including aromatic hydrocarbons such as benzene, toluene, and xylene, added to increase fuel octane and enhance engine performance. These additives replaced lead as a result of federal legislation by 1980, when lead was recognized as a neurotoxin and potent source of environmental contamination. However, there is strong evidence that the aromatics which replaced lead may also have dangerous impacts on environmental and human health. With recent advances in exposure science, genetics, and biomonitoring; scientists are making advances to identify individual and synergistic effects of multiple chemical exposures.

Transportation fuels are a critical issue in current U.S. energy policy. Numerous discussions are taking place to consider alternatives to fossil fuels, such as hybrid technology, hydrogen, and biofuels. Many of these discussions focus on energy dependence and opportunities to decrease greenhouse gas emissions. Decisions on policy directions must balance concern for the environment, energy security, and the economy. This workshop will move beyond the current discussions to examine the composition of traditional and alternative fuels and fuel additives and discuss the potential health impacts associated with their use.

This workshop, which is one in a series of workshops sponsored by the Roundtable on Environmental Health Sciences, Research, and Medicine, will focus on current and emerging environmental issues and their impacts on human health. The Roundtable was established to provide a mechanism for parties from the academic, industrial, and federal research perspectives to meet and discuss sensitive and difficult environmental health issues in a neutral scientific setting. The purpose is to foster dialogue, but not to provide recommendations.

Registration for this workshop is free. Please click here to use our online registration form, or call (202) 334-2548.

Last Updated: 11/14/2007, 11:53 AM

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