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Alert

Alert is a monthly update on transportation and air quality planning activities in the Delaware Valley.

Air Pollution and Health

Study Shows that Benefits of Walking and Cycling Outweigh Negative Effects of Air Pollution on Health

Regular physical activity reduces the risk of diseases such as diabetes, heart disease, and several cancers. One way for people to increase their levels of physical activity is through 'active travel' -- for example walking and cycling; however, concern has been raised about the potential risk due to air pollution while walking and cycling in urban environments.

Air pollution is one of the leading environmental risk factors for people's health. A recent report from the Royal Colleges of Physicians and Pediatrics and Child Health suggested that it contributes to around 40,000 early deaths a year in the United Kingdom. One of the main sources of air pollution in cities is transportation and a shift from cars, motorcycles, and buses to active travel would help to reduce emissions. However, people who walk or cycle in such environments will be exposed to more pollution, which could be detrimental to their health.

Previous studies conducted in Europe, the USA, and several other developed countries around the world found that the health benefits of active travel are greater than the risks, but these were undertaken in areas of relatively low air pollution, and the applicability of their results to more polluted cities in emerging economies has been uncertain.

Researchers in the United Kingdom, from the Center for Diet and Activity Research (CEDAR) and the Medical Research Council (MRC) at the University of Cambridge, used computer simulations to compare the risks and benefits for different levels of intensity and duration of active travel and of air pollution in different locations around the world, based on information from international epidemiological studies and meta-analyses. The study, published in the Journal *Preventive Medicine*, is the first to model the risks and benefits of walking and cycling across a range of air pollution concentrations around the world.

Using this data, the researchers calculated that in practical terms, air pollution risks will not negate the health benefits of active travel in the vast majority of urban areas worldwide. Only one percent of cities in the

Save the Date

Friday,
August 5, 2016

Press Conference Announcing 2016 Competitive CMAQ Program Awards
10:00 am
Location of Meeting:
Philadelphia Navy Yard
Building 101

Tuesday and Wednesday,
August 30-31, 2016

Northeastern Transportation and Air Quality Summit

Location of Meeting:
Baltimore Metropolitan Council Offices
Baltimore, MD

For more information please contact Kevin Black at:
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World Health Organization's Ambient Air Pollution Database had pollution levels high enough that the risks of air pollution would start to overcome the benefits of physical activity after half an hour of cycling every day.

Dr Marko Tainio from the MRC Epidemiology Unit at the University of Cambridge, who led the study, says:

“Our model indicates that in London health benefits of active travel always outweigh the risk from pollution. Even in Delhi, one of the most polluted cities in the world - with pollution levels ten times those in London - people would need to cycle over five hours per week before the pollution risks outweigh the health benefits. We should remember, though, that a small minority of workers in the most polluted cities, such as bike messengers, may be exposed to levels of air pollution high enough to cancel out the health benefits of physical activity."

Senior author Dr James Woodcock, also from CEDAR, says: "While this research demonstrates the benefits of physical activity in spite of air quality, it is not an argument for inaction in combatting pollution. It provides further support for investment in infrastructure to get people out of their cars and onto their feet or their bikes - which can itself reduce pollution levels at the same time as supporting physical activity."

The authors caution that their model does not take into account detailed information on conditions within different localities in individual cities, the impact of short-term episodes of increased air pollution, or information on the background physical activity or disease history of individuals. For individuals who are highly active in non-transport settings, such as recreational sports, the marginal health benefits from active travel will be smaller, and vice versa for those who are less active than average in other settings.

For more information on the University of Cambridge study, please visit: http://www.cam.ac.uk/research/news/walking-and-cycling-good-for-health-even-in-cities-with-higher-levels-of-air-pollution

Air Quality Information

Rebates Still Available for Pennsylvania Residents Purchasing Alternative Fuel Vehicles

As of June 29, 2016, the Pennsylvania Department of Environmental Protection (PA DEP) still has rebates available for Pennsylvania residents who purchase new electric, plug-in hybrid electric, natural gas, and other alternative fuel vehicles. Large battery electric vehicles (battery capacity greater than or equal to 10kWh) are eligible for the $2,000 rebate, while plug-in hybrid electric, natural gas, and other alternative fuel vehicles are eligible for $1,000 rebates. A $500 rebate is available for electric motorcycles and scooters.

Vehicles must be purchased by December 31, 2016. The program will be re-assessed after the first 250 rebates are awarded or December 31, 2016, whichever comes first.

For more information on the PA DEP Alternative Fuel Vehicle rebate program, please visit: www.dep.pa.gov and search AFV.

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