

New study links childhood asthma to living near traffic

By John Platt, Mother Nature Network

In the Fresno Bee, Monday, April 29, 2013

Another study has found a connection between childhood asthma rates and traffic pollution. The latest study, published in the European Respiratory Journal, looked at asthma levels in 10 European cities and found that people living near high-traffic roads accounted for 14 percent of all asthma cases.

According to the study's lead author, Dr. Laura Perez from the Swiss Tropical and Public Health Institute, this is the first study that concludes the number of cases of asthma in these cities would have been lower if the residents had not been exposed to pollution from road traffic. "In light of all the existing epidemiological studies showing that road traffic contributes to the onset of the disease in children, we must consider these results to improve policy making and urban planning," she said in a news release. The researchers used existing data for their study.

The research team, representing more than a dozen organizations across Europe, used a method called Population Attributable Fractions, which the World Health Organization says can be used to calculate the contribution of certain risk factors - in this case, road pollution - to "the burden of disease." The same calculations can be used to illustrate the risk factors of smoking and other similar scenarios. The researchers found that air pollution alone attributed to just 2 percent of asthma cases but that number increased to 15 percent when traffic-related pollution was factored in.

This new study comes about a year after another study published in the same journal concluded that both asthma rates and the related costs of asthma increased due to exposure to traffic-related air pollution. The study looked specifically at two communities - California's Long Beach and Riverside - that both have high levels of air pollution and housing in close proximity to large roads. Lead researcher Sylvia Brandt, an economist with the University of Massachusetts Amherst, said the cost of asthma in these two cities is a heavy burden on families, which can end up paying about \$4,000 a year for treatment. This represents 7 percent of the region's median household income. "This is troublesome because that is higher than the 5 percent considered to be a bearable or sustainable level of health care costs for a family," she said.

Another study published in September in Environmental Health Perspectives found similar problems and linked 8 percent of childhood asthma rates in Los Angeles County to traffic-related pollution in homes that were located less than 250 feet from major roads. Laura Perez of the Swiss Tropical and Public Health Institute also was the lead author of that study. One of her co-authors was Rob McConnell, a professor of preventive medicine at the University of Southern California, said in a news release that reducing pollution would benefit the planet by reducing greenhouse gas emissions while also benefiting human health.