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## HOUSEHOLD LEVELS OF MOLD FOLLOWING HURRICANE KATRINA SURPASS SOME AGRICULTURAL ENVIRONMENTS, ACCORDING TO NEW STUDY

## Mold and bacteria levels in New Orleans homes warrant use of strong respiratory protection

September 20, 2006 -- In a study assessing flood clean-up procedures in New Orleans following Hurricane Katrina, a team of scientists led by researchers at Columbia University's Mailman School of Public Health, report that household levels of mold and bacterial endotoxins in three single-family homes were so considerable that they equaled or surpassed those in waste- water treatment plants, cotton mills, and agricultural environments. The study is the first comprehensive report documenting levels of mold and bacteria in homes that received sustained flooding.

Following Hurricane Katrina, many New Orleans homes remained flooded for weeks, promoting heavy mold growth. These three New Orleans homes were selected for the study based on their levels of flood water, whether they previously were structurally sound, and if they were located in an area likely to be rebuilt. The study examined the extent to which homes that experienced significant and prolonged exposure to flood waters could be satisfactorily cleaned to enable reconstruction. Homes were inspected for roof leakage, standing water and the extent of mold throughout their interiors, as well as heating ventilation and air conditioning.

"From our data, it is clear that levels of mold were so high that we strongly recommend that those entering, cleaning, and repairing flood-damaged homes wear respirators that are more protective than plain dust masks," said Ginger Chew, ScD, assistant professor of environmental health sciences at Columbia's Mailman School of Public Health. "While our assessments of the data are based on a small demonstration project, the results give a clear picture of what is acceptable in flood clean-up procedures."

The project was sponsored by the NIEHS Center for Environmental Health in Northern Manhattan and Enterprise Community Partners, and was carried out by the Mailman School of Public Health, the National Center for Healthy Housing (NCHH) and several academic institutions including Tulane School of Public Health, the University of Cincinnati, Harvard School of Public Health, The University of Iowa, and Case Western Reserve University.

"Our goal was to make recommendations for the safe removal of flood-damaged articles, safe re-entry into homes, and safe levels of worker protection," said Jonathan Wilson, deputy director of the National Center for Healthy Housing.

According to researchers, these findings not only will inform those involved in current clean-up activities in New Orleans and other environments, but will benefit those responding to any future disasters that may occur.

The findings will be published in the December issue of *Environmental Health Perspectives*. To access the study currently online, visit http://www.ehponline.org/members/2006/9258/9258.pdf

## About the Mailman School of Public Health

The only accredited school of public health in New York City, and among the first in the nation Columbia University's Mailman School of Public Health provides instruction and research opportunities to more than 900 graduate students in pursuit of masters and doctoral degrees. Its students and more than 270 multi-disciplinary faculty engage in research and service in the city, nation, and around the world, concentrating on biostatistics, environmental health sciences, epidemiology, health policy and management, population and family health, and sociomedical sciences. www.mailman.hs.columbia.edu

*National Center for Healthy Housing* is the only national non-profit organization dedicated to developing and promoting practical measures to protect children from residential environmental hazards while preserving affordable housing. NCHH seeks to find scientifically

valid and practical strategies to make homes safe from hazards, to alert low- income families about housing-related health risks, and to help them protect their children. NCHH also works with governmental and non-governmental organizations to develop standards and programs and guide their implementation through insurers, lenders, federal and state laws and regulations, community organizations, and the courts.

www.centerforhealthyhousing.org