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Written Statement Submitted for the Record to the
Senate Education, Health and Environmental Affairs Committee
For the Hearing on
Senate Bill 773: Community Healthy Air Act (Sen. Madaleno)
February 28, 2017

SUPPORT

Disclaimer: The opinions expressed herein are our own and do not necessarily reflect the views of The Johns Hopkins University.

We are researchers at the Johns Hopkins Center for a Livable Future, an interdisciplinary academic center based within the Bloomberg School of Public Health in the Department of Environmental Health and Engineering. The Center engages in research, policy analysis, and education activities guided by an ecologic perspective that diet, food production, the environment, and public health are interwoven elements of a complex system. Recognizing the need for increased air monitoring of concentrated animal feeding operations and the identification of airborne pollutants surrounding concentrated these operations, **we support Senate Bill 773—the Community Healthy Air Act.**

Maryland produces around 300 million broiler chickens each year, the vast majority of which are produced on Maryland's Eastern Shore, an area of about 3,300 square miles of land. On average, there are about 89,000 chickens produced per square mile each year on MD's Eastern Shore. Research has shown that airborne contaminants from broiler chicken operations include ammonia, particulate matter, endotoxins, and microorganisms. Preliminary studies have shown that these contaminants are transported from broiler operations through large exhaust fans and have been detected in air samples surrounding operations.

Exposure to airborne contaminants from broiler operations has been associated with a range of adverse health effects. Ammonia emissions have been implicated in respiratory health, with up to 50% of poultry workers suffering from upper respiratory illnesses that are believed to be due to ammonia exposure. Studies have shown that endotoxin exposure can exacerbate pre-existing asthma or induce new cases of asthma. And particulate matter—consisting mainly of down feathers, mineral crystals from urine, and litter—is associated with chronic cough and phlegm, chronic bronchitis, allergic reactions, and asthma-like symptoms in farmers, and respiratory problems in people living in the vicinities of operations.

A 2010 USDA study measured volatile organic compounds (or VOCs) inside broiler operations and found high levels of acetic acid, methanol, acetone, and ethanol; similar studies have not been conducted *outside* of broiler operations, and would help to characterize nearby residents'

exposure to VOCs. It is important to note that even broiler operations that employ best management practices and mitigation techniques have been shown to generate airborne contaminants.

Maryland currently operates 25 air-monitoring sites, only two of which are on the Eastern Shore. Neither of these monitors is located in the lower part of Maryland's Eastern Shore, where the counties with the highest broiler inventories are located. Maryland Department of the Environment does not monitor or regulate emissions from concentrated animal feeding operations. In order to ensure that Maryland residents are not affected by air pollution from intensive broiler production on the Eastern Shore, it is first necessary to identify and monitor emissions released from broiler operations.

The Center for a Livable Future recently commissioned a poll with the research firm Greenberg Quinlan Rosner to assess Maryland voters' attitudes on broiler production. This poll, conducted in August, found that more half of Maryland voters—52%—want more oversight of the poultry industry, while only 8% want less oversight of the industry. A strong majority of voters —58% statewide and 58% on the Eastern Shore—say they would be more favorable toward their state legislator if he or she supported proposals to increase oversight of Maryland's poultry industry.

Passing the Community Healthy Air Act is a simple first step that Maryland can take to better understand the effects of poultry production on Maryland's residents.

Sincerely,

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