Air pollution can harm people's health and lead to breathing problems such as asthma and emphysema. Too much exposure to pollution during childhood can permanently reduce lung function. Some types of air pollution also can cause heart problems.

Air quality indices (AQI) are numbers used by government agencies to characterize the quality of the air at a given location. As the AQI increases, a large percentage of the population is likely to experience progressively more severe adverse health effects. Air quality index values are divided into ranges, and each range is assigned a descriptor and a color code. Standardized public health advisories are associated with each AQI range. The Air Quality Awareness Flag Program improves awareness of outdoor air quality and helps ensure that children get plenty of physical activity, while protecting their health when air quality is poor. Children are at greater risk from air pollution because their lungs are still developing, they are more likely to be active outdoors, and they breathe more air per pound of body weight than adults. They’re also more likely to have asthma.

Rowan County Health Department (RCHD) Air Quality Awareness Flag Program began on Earth Day in 2014. Community Transformation Project Grant funding was utilized to purchase a flagpole and Cleveland County Health Department donated a set of air quality flags. Allied Health staff checks the air quality index (AQI) in Rowan County each workday, and the corresponding color for each day’s AQI is flown. The color of the flag indicates the level of outdoor activity recommended for that day. Daycare centers and Rowan-Salisbury School System are notified each day via email. Participation is simple; using the program’s activity guidelines, daycare centers and schools can modify outdoor activities or move them inside if needed.