



Mott Poll Report

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Protecting Children from Poor Air Quality

Poor air quality can negatively impact children's health. Recent wildfires and extreme weather has heightened attention about poor air quality. The C.S. Mott Children's Hospital National Poll on Children's Health asked a national sample of parents of children 0-18 years about protecting children's health when air quality is poor.

Most parents (73%) are concerned about the impact of air quality problems on their child's health; fewer (63%) feel they know what actions to take regarding air quality problems. Two-thirds (67%) say that in the past two years they have experienced at least one day with poor or unhealthy air quality in their area. Parents believe the poor air quality was related to wildfires (81%), excessive heat (42%), and seasonal changes such as pollen (34%), elevated ozone levels (14%), and industrial pollution (11%). Parents cite news or weather reports (92%) as their main information source about air quality problems. Parents say that to protect their child's health while air quality was poor, they kept their windows closed (69%) and limited their child's time outdoors (68%), had their child avoid strenuous outdoor activities (47%), used a home air filter (19%), or had their child wear a mask when outdoors (11%); 14% took no action. Among parents reporting poor air quality in their area, nearly 1 in 5 (18%) believe it affected their child's health.

Parents who have not experienced poor air quality in their area say they would consider taking steps to protect their child's health if there were an alert from local news or weather (57%) or a government agency (43%), if they could see or smell a change in air quality (49%), or if they received guidance from their child's doctor (37%) or school (30%).

Only 21% of parents report their child's school has a policy with steps they will take when the air quality is unhealthy; most (61%) do not know if there is a school policy in place. When air quality is unhealthy, most parents think schools should move recess and physical education indoors (74%) and cancel outdoor sports and activities (66%); fewer parents support an individualized approach where parents would decide whether to remove their child from outdoor sports/activities (45%). About one-quarter of parents (27%) think schools should encourage children to wear masks outside when air quality is poor, while 8% do not support any school action.

Protecting children's health in poor air quality

% of parents who did the following when air quality was poor

Kept windows closed
69%

Limited child's
time outdoors
68%

Had child avoid strenuous
outdoor activities
47%

Purchased/used
home air filter
19%

Had child wear mask
when outdoors
11%



Source: C.S. Mott Children's Hospital National Poll on Children's Health, 2023

Report Highlights

3 in 4 parents are concerned about the impact of air quality problems on their child's health.

2 in 3 parents report poor or unhealthy air quality in their area, most often related to wildfires.

Among parents reporting poor air quality in their area, 1 in 5 believe it affected their child's health.

Data Source & Methods

This report presents findings from a nationally representative household survey conducted exclusively by Ipsos Public Affairs, LLC (Ipsos) for C.S. Mott Children's Hospital. The survey was administered in August 2023 to a randomly selected, stratified group of adults who were parents of at least one child age 0-18 years living in their household (n=2,044). Adults were selected from Ipsos's web-enabled KnowledgePanel® that closely resembles the U.S. population. The sample was subsequently weighted to reflect population figures from the Census Bureau. The survey completion rate was 62% among panel members contacted to participate. The margin of error for results presented in this report is ±1 to 4 percentage points.

A publication from C.S. Mott Children's Hospital, the University of Michigan Department of Pediatrics, and the Susan B. Meister Child Health Evaluation and Research (CHEAR) Center.

Findings from the C.S. Mott Children's Hospital National Poll on Children's Health do not represent the opinions of the University of Michigan. The University of Michigan reserves all rights over this material.

C.S. Mott Children's Hospital National Poll on Children's Health

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Implications

Air quality is particularly important when thinking about children's health. Because children breathe faster than adults, their lungs are exposed to more pollution per pound of body weight than adults. In addition, children typically spend more time outside than adults and their developing bodies are more susceptible to the impact of pollution.

The most striking finding from this Mott Poll is how common this issue is: two-thirds of parents have experienced at least one day of poor or unhealthy air quality. While local news and weather reports help parents know the quality of the air in their community, parents may be less aware of where to turn for reliable information about how to protect their child when air quality worsens. In addition to discussing the issue with their child's health care provider, parents may want to explore other recommended sources such as AirNow.gov that contain more detail and explanations.

Exposure to unhealthy air quality can negatively impact a child's lungs, causing or exacerbating respiratory diseases such as asthma and bronchitis. Parents should look out for wheezing, coughing, and other signs of breathing difficulties. If these symptoms occur, parents should remove their child from the source of the poor air quality and contact their child's health care provider to discuss further actions. Parents of children with asthma need to be particularly careful to identify situations where the air quality may be poor and monitor their child's symptoms.

For families without a history of asthma or environmental allergies, parents may tend to be less focused on the impact of poor air quality. However, it is important to note that exposure to pollution—especially the very small particles that can get into the deepest parts of the lungs—can cause a range of health problems including poorer cognitive functioning, impaired behavioral development, obesity, and childhood cancer, and puts them at risk for additional problems during their adult life such as stroke and heart disease.

With these risks in mind, parents must aim to strike a balance when deciding how best to protect their child from poor air quality. In general, being outdoors is good for children's physical and mental health. When air quality problems are expected to be temporary, a few days inside is warranted to avoid high levels of exposure. However, some air quality concerns extend for a longer period, particularly those related to industrial pollution. In these situations, children are vulnerable to both the negative respiratory effects as well as the long-term impact of decreased physical activity. Parents may want to find alternate options for physical activity, either indoors or in areas with better air quality.

If children must be outside during times of poor air quality, parents should ensure that they do not engage in strenuous activity that would cause them to take deep rapid breaths, and consider having children wear a KN95 mask outdoors. At home, parents should keep windows closed during days with poor air quality and use air filters or purifiers to help reduce indoor pollutants.

Schools play a role in protecting children from the adverse effects of poor air quality. Particularly on warmer days, schools should adopt and implement guidelines to manage students' exposure on high pollution days based on the color-coded Air Quality Index. Findings from this Mott Poll suggest that most parents think schools should take actions such as moving recess and physical education indoors. Another school action to consider is asking parents not to idle their car during drop-off and pick-up times.

Local and state policymakers can also strive to mitigate the negative effects of poor air quality. For example, officials can enact zoning policies that keep heavy traffic away from schools. Policymakers should consider the impact on babies and young children, particularly of long-term sources of pollution (e.g., factories, refineries). They can also provide funding for schools, daycare, and community organizations to purchase filters to improve air quality indoors.