Duquesne Tackles Student Asthma Problems at Several Pittsburgh–Area Schools

By Ken Walters

Asthma is one of the top reasons children miss school, but Duquesne University Professors Dr. Jennifer Elliott and Dr. Deborah Gentile are working to reverse this trend.

Last fall, Duquesne screened more than 1,000 students for asthma in several Pittsburgh-area school districts, the first time such school-wide asthma screenings were conducted for students.

The Clairton, Northgate, South Allegheny and Woodland Hills school districts and Propel-Hazelwood charter school implemented the screenings as part of their back-to-school process. Parents completed a four-question survey to identify if their child has asthma and, if so, whether it is controlled by medication.

Elliott and Gentile are spearheading the effort. They previously conducted asthma screens on more than 1,000 children in the region as part of a research project to determine asthma prevalence and control, and how environmental factors contribute to these outcomes. With continued funding from the Heinz Endowments and the Jefferson Regional Foundation, the screening program is being offered as a public service to interested schools.

“School-aged children in the Pittsburgh region have a much higher occurrence of asthma than children in other areas of the country,” says Gentile, adjunct pharmacy professor and asthma specialist. “The screenings allow us to identify if a child has asthma, if it is controlled, and treat it appropriately.”

The previous study conducted in 2017 was based at Allegheny Health Network (AHN). It found that of more than 1,200 western Pennsylvania school children, 24 percent suffered from asthma as compared to the national average of 8.3 percent, according to the National Center for Health Statistics.

Studies have shown that air pollution, among other triggers, can worsen asthma symptoms; and both Pittsburgh and Pennsylvania scored poorly on the American Lung Association’s 2018 State of the Air report. Pittsburgh, Lancaster, Philadelphia and Johnstown-Somerset were all Pennsylvania regions listed in the report’s top 25 for most-polluted areas by “year-round particulate pollution.”

In the AHN study, higher levels of outdoor air pollution corresponded to 1.6 times increased odds of asthma and 4.7 times increased odds of uncontrolled asthma.

The screenings mark the beginning of a larger push to make asthma screenings available for all schools in the Pittsburgh region and eventually Pennsylvania, says Elliott, associate pharmacy professor.

“Asthma is one of the top causes of missed school days, which can have a negative impact on a child’s ability to learn, be active and develop healthy peer relationships,” she says. “In past studies, we’ve found that approximately 15 percent of parents may not even know that their children have asthma. School-based screenings can help ensure children with asthma receive the treatment they need earlier to live healthier lives.”

Another issue is uncontrolled asthma. Elliott and Gentile found that close to 60 percent of the children with asthma enrolled in their study had uncontrolled asthma, putting them
Approximately 15 percent of parents may not even know that their children have asthma.

Studies have shown that air pollution, among other triggers, can worsen asthma symptoms; and both Pittsburgh and Pennsylvania scored poorly on the American Lung Association’s 2018 State of the Air report. Pittsburgh, Lancaster, Philadelphia and Johnstown-Somerset were all Pennsylvania regions listed in the report’s top 25 for most-polluted areas by “year-round particulate pollution.”

In the AHN study, higher levels of outdoor air pollution correspond to 1.6 times increased odds of asthma and 4.7 times increased odds of uncontrolled asthma.

Duquesne is a perfect fit to work on such a plan, given the University’s expertise in pharmacy, nursing, health sciences, psychology and other health-related programs, says Bill Generett, the University’s vice president for community engagement. “As Hazelwood looks to grow in the future, it will be essential that the community has an infrastructure that addresses health care,” he says. “With Duquesne’s expertise in so many areas, we look forward to helping Hazelwood develop a health program that meets the needs of all of its citizens.”

“Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Dr. Jennifer Elliott

Health care services in Hazelwood have been inconsistent in the past, with both a lack of services and access to services,” Elliott says. “Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Approximately 15 percent of parents may not even know that their children have asthma.

Duquesne is a perfect fit to work on such a plan, given the University’s expertise in pharmacy, nursing, health sciences, psychology and other health-related programs, says Bill Generett, the University’s vice president for community engagement. “As Hazelwood looks to grow in the future, it will be essential that the community has an infrastructure that addresses health care,” he says. “With Duquesne’s expertise in so many areas, we look forward to helping Hazelwood develop a health program that meets the needs of all of its citizens.”

“Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Dr. Jennifer Elliott

Health care services in Hazelwood have been inconsistent in the past, with both a lack of services and access to services,” Elliott says. “Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Approximately 15 percent of parents may not even know that their children have asthma.

Duquesne is a perfect fit to work on such a plan, given the University’s expertise in pharmacy, nursing, health sciences, psychology and other health-related programs, says Bill Generett, the University’s vice president for community engagement. “As Hazelwood looks to grow in the future, it will be essential that the community has an infrastructure that addresses health care,” he says. “With Duquesne’s expertise in so many areas, we look forward to helping Hazelwood develop a health program that meets the needs of all of its citizens.”

“Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Dr. Jennifer Elliott

Health care services in Hazelwood have been inconsistent in the past, with both a lack of services and access to services,” Elliott says. “Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Approximately 15 percent of parents may not even know that their children have asthma.

Duquesne is a perfect fit to work on such a plan, given the University’s expertise in pharmacy, nursing, health sciences, psychology and other health-related programs, says Bill Generett, the University’s vice president for community engagement. “As Hazelwood looks to grow in the future, it will be essential that the community has an infrastructure that addresses health care,” he says. “With Duquesne’s expertise in so many areas, we look forward to helping Hazelwood develop a health program that meets the needs of all of its citizens.”

“Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Dr. Jennifer Elliott

Health care services in Hazelwood have been inconsistent in the past, with both a lack of services and access to services,” Elliott says. “Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Approximately 15 percent of parents may not even know that their children have asthma.

Duquesne is a perfect fit to work on such a plan, given the University’s expertise in pharmacy, nursing, health sciences, psychology and other health-related programs, says Bill Generett, the University’s vice president for community engagement. “As Hazelwood looks to grow in the future, it will be essential that the community has an infrastructure that addresses health care,” he says. “With Duquesne’s expertise in so many areas, we look forward to helping Hazelwood develop a health program that meets the needs of all of its citizens.”

“Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Dr. Jennifer Elliott

Health care services in Hazelwood have been inconsistent in the past, with both a lack of services and access to services,” Elliott says. “Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Approximately 15 percent of parents may not even know that their children have asthma.

Duquesne is a perfect fit to work on such a plan, given the University’s expertise in pharmacy, nursing, health sciences, psychology and other health-related programs, says Bill Generett, the University’s vice president for community engagement. “As Hazelwood looks to grow in the future, it will be essential that the community has an infrastructure that addresses health care,” he says. “With Duquesne’s expertise in so many areas, we look forward to helping Hazelwood develop a health program that meets the needs of all of its citizens.”

“Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Dr. Jennifer Elliott

Health care services in Hazelwood have been inconsistent in the past, with both a lack of services and access to services,” Elliott says. “Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Approximately 15 percent of parents may not even know that their children have asthma.

Duquesne is a perfect fit to work on such a plan, given the University’s expertise in pharmacy, nursing, health sciences, psychology and other health-related programs, says Bill Generett, the University’s vice president for community engagement. “As Hazelwood looks to grow in the future, it will be essential that the community has an infrastructure that addresses health care,” he says. “With Duquesne’s expertise in so many areas, we look forward to helping Hazelwood develop a health program that meets the needs of all of its citizens.”

“Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Dr. Jennifer Elliott

Health care services in Hazelwood have been inconsistent in the past, with both a lack of services and access to services,” Elliott says. “Working with community members, we will assess the area’s needs and develop a plan that will work to improve health care in the neighborhood.”

Approximately 15 percent of parents may not even know that their children have asthma.