Sinai Health System – Chicago
Community Health Workers Help Asthma Patients Thrive

The AHA’s Members in Action series highlights how hospitals and health systems are implementing new value-based strategies to improve health care affordability. This includes work to redesign the delivery system, manage risk and new payment models, improve quality and outcomes, and implement operational solutions.

Overview

Concerned about the growing number of children coming to the emergency department (ED) seeking asthma treatment, Sinai Urban Health Institute (SUHI), the community-based research arm of Sinai Health System, first launched a community-focused initiative to address the disproportionate asthma burden in its inner-Chicago service area in 2001. Following several years of building and testing a home-based community health worker (CHW)-led model, SUHI expanded its efforts to launch Asthma CarePartners (ACP) in 2011.

ACP partners with Medicaid managed care organizations, health systems, and private insurers to integrate CHW-led healthy homes asthma interventions into standard health care delivery. Working with children, their caregivers and adults to improve their asthma control, CHWs use education, support, and guidance to empower patients. When individuals and families receive appropriate education and medical treatment, it is possible for those with asthma to live full and active lives without frequent visits to the ED.

Asthma rates in Chicago are higher than the national average and are even higher in the economically disadvantaged neighborhoods near Sinai. In three of the nearby neighborhoods, one in five adults has asthma. The initial intervention in 2001 involved CHWs visiting with patients in clinics. But because the home environment is a critical piece in managing asthma, the initiative soon expanded to visiting patients where they live.

Impact

Patients enrolled in ACP miss fewer days of school, are more physically active and lose less time from work. Outcomes include a 59% to 62% reduction in asthma symptoms and use of quick-relief medication, such as inhalers.

In addition, the program reports decreased urgent health resource utilization:

- ED visits reduced by 75%;
- Hospital days reduced by 80%; and
- Urgent clinic visits reduced by 91%.

SUHI estimates $3 to $8 in health care costs are averted for every $1 spent on the program.

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The majority of CHWs live in the same neighborhoods in which their clients reside, sharing the culture and many of the same life experiences. Their role is to reach out and educate individuals and families on mitigating asthma symptoms. CHWs conduct a comprehensive home assessment to evaluate the home environment. They instruct patients how to take medications, including the proper technique for using inhalers, and how to care for themselves by learning and understanding their asthma triggers.

The CHWs also stress the importance of proper ventilation, using cleaning products that do not exacerbate asthma, laundering bedding, controlling dust, and eliminating air fresheners. In addition, they engage a tenants’ rights organization when environmental issues are identified that require a landlord to remove mold, replace carpeting, or address environmental factors in the home that may exacerbate breathing problems.

Depending on a partnering organization’s needs, an ACP engagement may be three or 12 months long, with four or six home visits, respectively. ACP is offered to both publicly and privately insured patients at no cost to them.

Building on ACP’s success, SUHI expanded the CHW model to include diabetes care and breast health navigation. SUHI is working with other health systems and payers in the Chicago area to provide direct service or train their CHWs in core skills, chronic disease management, and health system navigation.

**Lessons Learned**

ACP patients and their families are often faced with challenges related to employment, housing, and safety. Though they may want to participate in the program, CHWs often discover that the patients may be difficult to reach because they move or change phone numbers. SUHI recommends rigorous training and supervision for CHWs, disseminating insights gained from experienced staff and supervisors on how to overcome barriers and share outreach strategies. CHWs understand that adherence to information learned in the program and proper use of asthma medications may take time and that change may be slow, especially when substandard housing issues are present.

**Future Goals**

SUHI is taking steps to expand its CHW model to a wide range of health issues, including working with medically complex patients and individuals who visit the ED to assist with addressing their social determinants of health. Currently SUHI is testing the model with a local health department to identify lead hazards in the home proactively before health issues occur.

“Community health workers are the piece that makes this happen and enables people to really change their lives,” said Julie Kuhn, program manager. “I’m a huge advocate for community health workers.”

“Given health care’s transition to value-based care and population health improvement, engaging CHWs is worth considering,” said Helen Margellos-Anast, director of community health innovations.

“The time is now,” she said.

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**Home assessments help identify environmental factors that exacerbate asthma symptoms.**

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