Testing Whether Home Visits by Community Health Workers Help African-American and Hispanic Patients with Low Incomes Better Manage Asthma

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What was the research about?
Asthma is a common illness in adults that can make it hard to breathe. Patients with uncontrolled asthma may end up in the emergency room, or ER, or in the hospital. People who have low incomes and who are African American or Hispanic are more likely to have asthma than other adults.

Patient portals may help patients with asthma manage their symptoms. Patient portals are secure websites where patients can view their health records, see test results, send messages to their doctors, and ask for prescription refills. Community health workers, or CHWs, may also help patients—especially those with low incomes—manage asthma. CHWs are trained to teach people about health and link them with health and social services in their community.

In this study, the research team wanted to learn whether African-American and Hispanic patients who had patient portal training plus visits from CHWs improved control of asthma symptoms more than patients who had patient portal training alone. The team also looked at

- Asthma-related quality of life
- Number of visits to an ER
- Number of hospital stays

What were the results?
After one year, patients in the two groups didn't differ in how much asthma symptoms improved. Patients in both groups improved their control of asthma symptoms.

Compared with patients who had patient portal training alone, patients who also had visits from CHWs reported fewer hospital stays. The groups didn't differ in quality of life or the number of trips to the ER.

Who was in the study?
The study included 301 adults with moderate to severe asthma in Philadelphia. Of these, 75 percent were African American, 22 percent were Hispanic or Latino, 1 percent were white, and 1 percent were other races. The average age was 49, 90 percent were women, and 79 percent had incomes less than $30,000 per year.

What did the research team do?
The research team assigned patients by chance to one of two groups. In both groups, patients had training to use a patient portal. In the second group, patients also had up to four home visits from CHWs over six months. During these visits, CHWs created or reviewed an action plan for asthma care. They also helped patients use the portal on a computer to send messages to their doctors and make appointments.
Patients completed a survey before the training and again one year later.

Patients with asthma, their families, and clinicians helped design the study.

**What were the limits of the study?**
Many patients didn't have a computer at home and could only access the patient portal at a school or library. CHWs also had trouble scheduling home visits with patients. These problems may have led to lower use of the patient portal and fewer than four CHW visits.

Future research could look at other programs for asthma control that don't rely on a computer.

**How can people use the results?**
Doctors can use the results when considering ways to help people with low incomes manage asthma.

*To learn more about this project, visit www.pcori.org/Apter273.*