

# Case Study

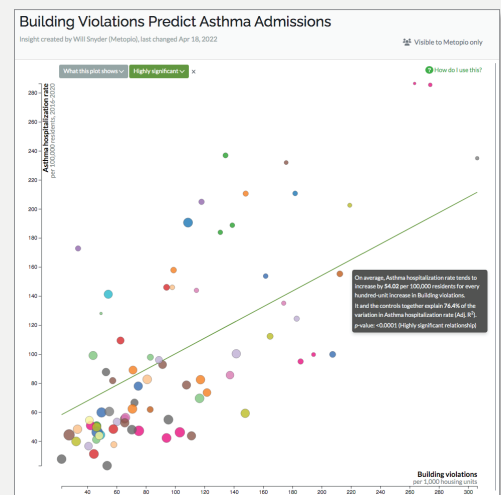
## Solve for Social Determinants of Health – Asking about Asthma Admissions

Finding the root cause of asthma admissions at a large metropolitan hospital meant using community data in new ways. Health system executives were asking, “With a strong, clinical asthma program, what could be causing thousands of costly Emergency Department visits from uninsured patients?”

### Use data with confidence to find root causes

Metopio Analytics provided curated data and tools to move from a reactive understanding of asthma to a contextualized and predictive approach in just a few steps. Here’s how:

- 1 Starting with the hospital’s data:** Over five years, there were 4,777 ED visits and hospitalizations related to asthma from uninsured patients costing on average \$11,000 per patient, per visit. With Metopio, the team quickly mapped where those patients were coming from.
- 2 Applying community data:** Hospital leaders used their data along with Metopio’s curated, verified community data to investigate the relationship between their patient’s ZIP codes and dozens of social determinants using Metopio’s recommendation engine.
- 3 Verifying insights:** Once they were focused on poor housing as a root cause based on the age of housing, crowded housing, building violations and lead paint, Metopio’s tools helped them verify the insights and act with confidence.



### Move from analysis to intervention

From this analysis, the hospital developed a new intervention to investigate the condition of patients’ homes. To start, 20 uninsured asthma patients who had been to the hospital in the past year were screened and offered in-home assessments. Minor home improvements to address asthma triggers such as mold remediation, HVAC repairs, carpet replacement and pest management were completed.

Not one of the 20 patients in the initial group came back to the ED for treatment for asthma.

### Improve patients’ health, keep costs down

The cost to screen a patient, inspect the home and remediate asthma triggers was \$3,700 on average. This cost is \$7,300 less per patient than just one Emergency Department visit for asthma.

By using Metopio to identify a root cause in the community, the hospital created an effective partnership, significantly improved patient wellness, and reduced unnecessary asthma-related utilization and costs. This pilot is now being used as the basis to talk with health plans about payment for the program.