# The Heat Is On

A new way to identify areas with large numbers of high-cost Medicaid patients may improve their health while saving states money.

BY MELISSA HANSEN

How to lower the cost of Medicaid is about as hot an issue as any. So it is appropriate that one of the most promising new techniques designed to save some taxpayers money is called hotspotting.

New technology allows Medicaid programs to map expenditures geographically and identify areas (hotspots) with unusually high numbers of very costly patients. Officials then use that information to focus on why these patients are costing more and what can be done about it.

### The 5 Percent

About 5 percent of the enrollees accounts for a little more than 50 percent of all Medicaid expenses. Some of these high-cost patients are called "high utilizers" by hotspotters, meaning they are admitted to the hospital three or more times a year or go to the emergency room more than six times every two years.

"If you want to contain the costs of Medicaid," says Dr. Jeffery Brenner of the Camden Coalition of Healthcare Providers, a pioneer in hotspotting, "you have to follow the money and invest in very targeted interventions."

Once an area is identified, such as a housing unit or an assisted living community, officials can focus on finding out why costs run high there. The idea is to lower expenses by providing these neediest patients with more directed, and possibly different, care to address their overuse of expensive emergency services, while maintaining or even improving the quality of care they receive.

The answers to why these patients are frequenting emergency rooms are often surprisingly simple: An elderly patient's medicine cabinet is overflowing with prescriptions he no longer remembers how to take safely. A woman has a heart condition exacerbated by the heat, but not enough money to buy an air-conditioner. A city dweller with no regular primary care doctor uses the emergency department for every ailment.

The solutions to these problems are relatively easy to identify,

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but much harder to achieve. To reduce their use of unnecessary expensive health care, these patients may need non-medical services. The problem is, Medicaid has historically declined to pay for these types of services.

"Providers and patients want to do the correct thing, but Medicaid is designed to pay for the average patient, not complex patients," says Brenner. "Medicaid is wasting a lot of money on expensive care when all we need to do is spend a little money to visit them at home and to help them stabilize."

Some evidence from pilot projects focused on providing more coordinated care support his opinion.

### The Pioneers

Hoping to capitalize on the promise of hotspotting, the Robert Wood Johnson Foundation granted $2.1 million to 16 communities to develop pilot programs. Their charge: Identify patients who make the most frequent hospital visits and improve the care they receive outside of the hospital.

The foundation hopes to create a sustainable model for other communities and other states to follow.

An interesting example of the use of hotspotting comes from Camden, N.J. In 2002, a small group of primary care doctors began meeting over breakfast to discuss concerns they faced in their practices, and it didn't take long to figure out most problems were shared by all. The meetings grew, attracting a diverse group of providers who eventually formed the Camden Coalition of Healthcare Providers.

In discussing ways to make the health care system more efficient, the coalition began creating graphical pictures—or hotspots—from data collected on patients' insurance claims. These pictures illustrated an often fragmented, episodic, uncoordinated and extremely inefficient health care delivery system.

The graphics illuminated the fact that half the city's residents were using emergency departments or hospitals for head colds, viral infections, ear infections and sore throats—all conditions easily and inexpensively handled in primary care settings.

The coalition then worked with New Jersey lawmakers in 2010 to pass legislation that established the Medicaid Accountable Care Organization Demonstration Project. It supports a new
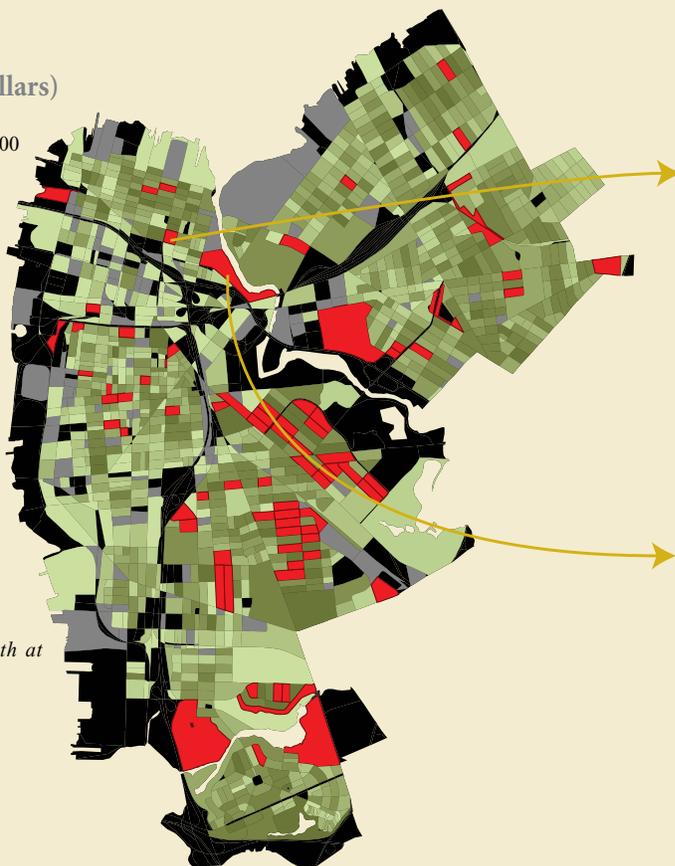
# A Snapshot of a Hotspot

Hotspotting is a job for geeks. It requires taking a large amount of data and organizing it in a mathematical way to create a graphic or picture. The resulting illustration—like the one below from Camden, N.J.—show doctors and Medicaid officials exactly where they need to target their efforts.

## Health Care Cost Hotspots in Camden, N.J. (Jan. 2002-June 2008)

**Receipts (deciles in dollars)**

- $1,000,000 – $16,720,000
- $813,900 – $1,000,000
- $559,900 – $813,800
- $397,900 – $559,800
- $290,800 – $397,800
- $206,200 – $290,700
- $122,400 – $206,100
- $53,630 – $122,300
- $11,090 – $53,620
- $421 – $11,080
- $0

*Map includes only blocks with at least one visit.*

**High Cost Buildings...**

**Northgate II**
3,901 visits, 615 patients
$83 million in charges ($21,000 per visit)
$12 million in receipts
15% collection rate

**Abigail House**
1,414 visits, 332 patients
$92 million in charges ($65,000 per visit)
$15 million in receipts
16% collection rate

*The median block in Camden had $290,800 in hospital receipts over a six-and-a-half-year period. During the same period, Northgate II and Abigail House, the two most expensive addresses, had $12 million and $15 million in receipts respectively.*

*Source: The Camden Health database, an all-payer, all-hospital database of longitudinal claims data for Camden City residents managed by the Camden Coalition of Healthcare Providers*

business model for Medicaid that promotes better coordinated care for patients.

The new model rewards providers for how well they coordinate care, control disease and contain costs instead of how many patients they treat, and tests and procedures they perform. Providers are rewarded for working together to contain costs by helping patients avoid expensive care that results from complications when chronic diseases are not controlled.

*Senator Joseph Vitale (D) New Jersey*

Before this legislation, "we paid more money for less than stellar results," says New Jersey Senator Joseph Vitale (D), sponsor of the bill. "It was time we moved away from the existing system that put vulnerable New Jerseyans at a disadvantage to receiving high-quality care and began to invest state resources in a smarter, cost-effective model of health care for Medicaid enrollees," he says.

So far the results are encouraging. Case studies show that people's health is improving and costs are being contained. More formal evaluations will produce a final verdict, but hotspotters are not waiting to fine tune their programs. They use data regularly to identify areas where they can improve how they meet the needs of the Medicaid patients they serve.

*Senator Ellen Roberts (R) Colorado*

Colorado Senator Ellen Roberts (R) supports this new concept, but with reservations. Because of the diversity among states and their Medicaid programs, she believes one model may not be right for every state.

"Any change we make to the Medicaid program has to add value, but one size doesn't fit all," she says. "It is about what works in each state and in each community."