

The Boston Globe

Trying to put a price on mobile health clinics

Study finds Harvard program may save millions

By Kay Lazar, Globe Staff | June 3, 2009

ROXBURY - Chris Coleman is upfront about his mission. The newly unemployed salesman engaged in some risky sexual behavior and, though he doesn't have health insurance or a family physician, figured he should get "an AIDS test, just to be sure."

On Monday, the 25-year-old Coleman climbed aboard a Winnebago-size van parked in the heart of bustling Dudley Square and waited his turn near 80-year-old Dexter Callender, who has high blood pressure, Medicare insurance, and a doctor he sees once a year. Still, Callender gets his blood pressure checked monthly on the van because "you never know," he said, "what can happen between doctor's visits."

Or, for that matter, how much an unchecked illness might ultimately cost taxpayers. Until now.

The Family Van, Harvard Medical School's curbside clinic that has offered free tests and counseling in Boston's low-income neighborhoods for 17 years, saved the healthcare system roughly \$20 million last year by getting hard-to-reach patients to stick with treatments and avoid costly care in hospital emergency rooms, according to a study published this week in *BMC Medicine*, an online peer-reviewed journal.

As US healthcare costs spiral upward and lawmakers debate ways to overhaul the system, a team of Harvard-led researchers suggests that such alternative approaches are an overlooked but valuable return on investment. Using a formula they developed, the researchers figure that The Family Van returns \$36 for every \$1 invested.

"You get a much bigger bang for your buck with these simple preventions that don't have high-cost technologies associated with it," said study coauthor Paul Cote, a former Massachusetts public health commissioner who is now a private healthcare consultant.

The researchers intend to fine-tune and make their formula publicly available online later this

year to operators of the more than 2,000 mobile health programs nationwide.

"They can enter their data, not only to measure the value of what people are doing right now, but to help them see the trade-off between a selection of interventions that may have a higher cost benefit," Cote said.

It costs about \$566,000 to run The Family Van, which recorded about 5,000 patient visits last year. The researchers figure that about 80 percent of the visits would have ended up in a hospital emergency room if the van wasn't around, because most patients say they don't have a regular physician and instead head to the ER.

Van services are free to patients, but each visit costs Harvard about \$117. That compares with about \$920 to treat a nonemergency illness in an emergency room. The potential savings from services provided in the van was about \$3.1 million, according to researchers.

But that's just for starters.

The researchers calculate that the van saved another \$17.7 million in "life years," a concept used by health economists to put a value on the number of years of life added by various medical interventions. Each life year equals \$70,000.

The medical interventions offered on the van include HIV testing and screening for high blood pressure, diabetes, depression, and vision problems, in addition to counseling on nutrition, weight control, and family planning. Researchers calculate the Harvard van is responsible for 254 quality "life years" saved. Multiply that by \$70,000, add the savings from avoided ER visits, then subtract the cost of running The Family Van and you have a grand annual total of \$20.3 million in savings, according to the researchers.

Now, the Harvard team's math is drawing mixed reviews from other health researchers and economists.



"I think it's an important first step," said Dr. Bradley Doebbeling, director of the Indiana University Center for Health Services and Outcomes Research and a Regenstrief Institute investigator.

Despite national scrutiny of healthcare costs, Doebbeling said the nation's health system lacks a common, widely accepted methodology for calculating cost-savings from various far-flung programs. The Harvard calculator, he said, is the first "straightforward" approach he's seen, although he faulted the researchers for omitting some details of their methodology.

But Brandeis University health services researcher Christopher Tompkins said Harvard's approach is overly optimistic in calculating savings.

Their "assumptions seem to be that the mobile visits will have virtually lifelong and life-sustaining benefits, whereas the averted [emergency room] visits would have none of those benefits," he said. "They make sweeping conclusions that go beyond their model."

Van patients, who typically receive government subsidized health insurance and often don't speak English, tend to emphasize more modest selling points.

"It's quick," said Coleman, the unemployed salesman who sought HIV testing Monday. Normally, he said, the wait to see a doctor in the ER, where he usually goes for routine care, takes a lot longer.

"For people who don't think they have options, it's really convenient," he added, "because it's right here."

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