

DM DISEASE MANAGEMENT ADVISOR™

Gaps in care are common in high-risk patients

Medicaid programs reveal ways to better manage asthma patients

Numerous studies have shown that it is difficult to produce both clinical and financial results from DM interventions focused on asthma. Further complicating management of this disease is the reality that asthma is more prevalent among certain minority groups, and the morbidity and mortality associated with asthma is particularly evident among disadvantaged youths who reside in urban areas. Despite these challenges, there are clear gains to be made from better management of asthma. Statistics suggest that asthma accounts for one-quarter of all ER visits and an estimated 500,000 hospitalizations every year. Yet such utilization can often be avoided with proper management.

What clinicians and healthcare organizations struggle with is how to improve management of asthma without

spending more money on interventions than will be saved in reduced utilization. It is a difficult balancing act, but there is evidence that it can be done. For example, the Medicaid program in Arkansas is having success with an intervention that focuses on arming PCPs with timely information about their patients' medication purchases

and utilization histories so that PCPs can make better treatment decisions. Alternatively, Dallas-based Parkland Community Health Plan has achieved impressive out-

comes by working with a local vendor to quickly identify and reach out to Medicaid recipients affected by asthma.

“When their problems are out of control and not being well managed, it is a tremendously bad thing for them, and it is a big burden on the health plan, so it was important for us to come up with a plan to deal with asthma early on.”

—Barry Lachman, MD

Outsourced effort delivers returns

Parkland serves a young population—110,000 out of 135,000 members are under the age of 18—and 13% of the pediatric population has asthma, explains **Barry Lachman, MD**, the health plan's medical director. “When their problems are out of control and not being well managed, it is a tremendously bad thing for them, and it is a big burden on the health plan, so it was important for us to come up with a plan to deal with asthma early on,” he says.

However, Lachman adds that although the health plan was interested in developing asthma DM programming, administrators felt that it would take too long to develop such programming internally. “We didn't feel like we could easily put some of the elements in place that we needed to have a DM program that would get



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Asthma

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to the needs of our population very quickly," he says. For example, Lachman explains that health plan staff members did not have experience with stratification or in selecting suitable materials for education. "There were just numerous things that we were going to have to learn from the ground up that we could get by outsourcing to a good vendor."

Consequently, in 2003, Parkland teamed up with Dallas-based AirLogix to develop a program that would meet the needs of its growing asthma population. And the partnership has proven successful with gradually

improving results in each of the last three years. Third-year results were most impressive, compared to baseline, says Lachman, pointing to a nearly 32% decrease in ER visits and a 29.8% decrease in hospitalizations. (See **Figure 1** on p. 111.)

"We were able to document fairly robust results in terms of real decreases in utilization, and that has not been the community experience," says Lachman, noting that there have been no parallel improvements taking place in the larger community with respect to asthma.

Access is an issue

Lachman believes that the program's success is, in part, attributable to the early identification of members with asthma and a stratification system that prioritizes outreach efforts for patients at highest risk. This process takes place every month—AirLogix analyzes the latest claims and pharmacy data from Parkland to identify all members with asthma and then uses a predictive model that was developed by Airlogix to assign each patient a risk score, explains **Julie Sizemore**, chief operating officer for AirLogix.

She says that the software looks at such factors as whether a patient has been filling his or her prescriptions for long-term controller medications, or whether he or she has been filling his or her short-acting bronchodilator every month. "We also take into consideration ZIP codes," says Sizemore. "The software can determine that there are certain geographic areas that are more likely to have [problems with asthma] than other areas."

Once the data have been fully analyzed, and patients have been loaded into the AirLogix system based on their risk score. Sizemore explains that respiratory therapists and, in some cases, nonclinician personnel begin to make outbound calls to the members to further assess the state of their asthma care. "We are looking for people who have uncontrolled symptoms because those are the people who need our help," says Sizemore. "People who are on good medication regimens and not

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having symptoms aren't the people who really need our program."

Information gleaned from the initial phone call will be added to the AirLogix database and used to develop a treatment plan for the member that indicates what level of ongoing program interaction the patient or family needs. In many cases, subsequent phone consultations will be scheduled to address the issues uncovered during the initial encounter. In other cases, Sizemore says, staff members will schedule a home visit for the member with a respiratory therapist.

"When people are on good medication regimens, saying that they are taking their meds as prescribed, and yet they are still very symptomatic—those are the people we are really going to focus our home visits on because there is probably something in the environment that is causing them to be ill, or maybe they really are not taking their meds as prescribed," says Sizemore. "We can find all this out if we are sitting face to face with them."

Throughout the process, Sizemore says, PCPs are kept informed about their patients' encounters with AirLogix as well as any information gleaned through these encounters that may be pertinent to the physician's treatment approach. In addition, AirLogix works

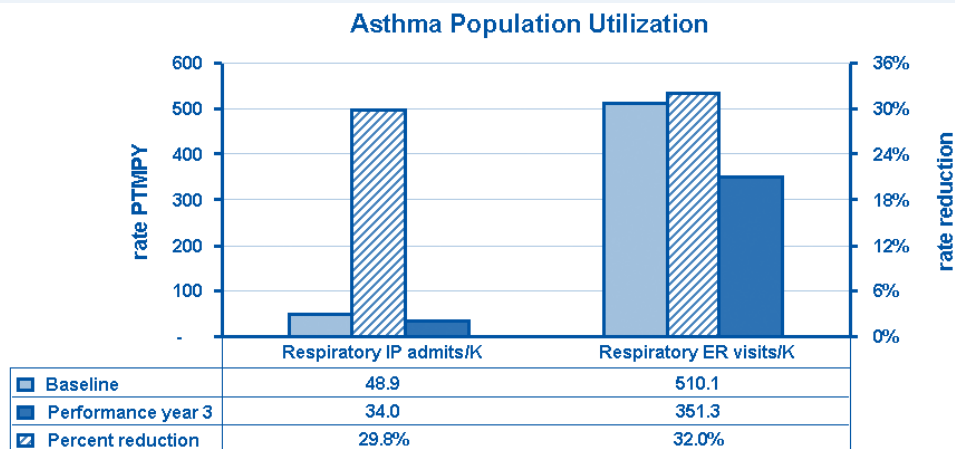
closely with Parkland's social workers to address any psychosocial issues that are interfering with asthma control.

For example, Sizemore points out, many families have difficulty accessing care, either because they lack transportation or are unable to schedule visits with their PCP during office hours because they cannot get time off from work. Families in these types of circumstances tend to use the ER more often as a practical matter. However, Sizemore notes, these difficulties can often be resolved with the assistance of social services as well as patient education designed to improve management of the asthma. In addition, she points out patients can call AirLogix at any time of the day or night with questions or concerns about their care.

Working with AirLogix, Parkland has clearly made a dent in reducing unnecessary utilization. However, Lachman believes there is room for further improvement in a couple of different areas. "We are always looking for strategies involving earlier engagement of clients," he explains, noting that the process of identifying patients for intervention through claims can be excruciatingly slow, especially with Medicaid recipients who may be

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Figure 1: Parkland-AirLogix asthma disease management program outcomes



Source: AirLogix, Dallas.

1. The asthma population is identified using a 24-month (measurement period + 12-month look-back) identification period.
 2. Respiratory utilization means events with primary ICD-9 diagnosis codes between 460.xx and 519.xx.

Asthma

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enrolled in a DM program only for a short period of time. In addition to looking for new ways to reach people earlier, Lachman would also like to develop additional strategies for dealing with the most complex patients. “The people who have that combination of psychosocial problems and severe asthma are the hardest to reach and deal with,” he explains. “We have done some things to cross that frontier, but I think there are some others we can do in that area.”

Arkansas targets high-risk asthmatics

Statewide interventions aimed at making providers aware of evidence-based treatment guidelines for asthma care have helped Arkansas’ Medicaid program gradually improve its standing on asthma-related HEDIS measures. However, in 2004, recognizing that there were still huge opportunities for clinical improvement and cost savings, health planners decided that they needed to do more. “We noticed early on that a small subset of asthma patients consumed a very large percentage of acute care services,” says **William Golden, MD**, vice president for clinical quality improvement at the Arkansas Foundation for Medical Care (AFMC), a nonprofit organization that spearheads and supports healthcare quality-improvement efforts.

Working with the Hamilton, NJ-based Center for Health Care Strategies, AFMC decided to focus new interventions on the 4% or 5% of asthmatics who were responsible for the lion’s share of ER visits and hospital admissions. However, Golden stresses that administrators were well aware that implementing a cost-effective strategy would involve a delicate balancing act of making sure that the state didn’t spend so much on interventions that it was impossible to achieve ROI.

To make sure that staff members reached out to the highest-risk patients, AFMC developed a priority code system that stratifies asthma patients based on their hospital and ER use. This system—which establishes four risk levels—was then used to guide the frequency and

level of outreach to asthma patients. Further, concluding that in-person or in-home visits would be too expensive, AFMC decided to have nurses reach out to the identified patients by phone or mail—in some cases multiple times.

“We knew what their pattern of care was, so we knew which patients had come to the ER several times and had never seen a physician in the outpatient sector, and we knew which patients had been to the ER many times but had only filled prescriptions for beta-agonists,” says Golden. “So [the nurses] would tailor their discussions with the families about the potential gaps in their care.”

In addition to the patient interventions, providers received profile reports of the asthma patients in their care along with each patient’s pharmacy data and utilization patterns. Through these reports, physicians could see which patients were not filling their prescriptions and which patients had been to the ER twice since their last office visit.

“We have been doing [these profiles] with other diseases, so this is not something new. And we also have academic detailers who go visit the physicians’ offices, so they are used to seeing this [kind of communication] from us,” says Golden, emphasizing that AFMC staff members are careful to approach physicians in a neutral way. “We basically say that there are some opportunities here, and they should look them over. One way or another, we get the message across.” In fact, AFMC is now in the process of making the profile reports available to physicians online through a portal—a move Golden says has been well received by providers.

Thus far, the approach of targeting high-risk patients has paid off for AFMC. Golden indicates that the program has delivered an ROI of \$5 or \$6 on every dollar spent toward the interventions.

Golden acknowledges that the program is targeting a tricky population that can be very difficult to reach by phone or mail, but he is encouraged by these results and is hopeful that the approach can yield further gains with the online portal. ■

Blending mental healthcare and traditional models

Investigators try to mitigate the impact of depression on outcomes in HF patients

For reasons that are not entirely clear, HF patients with depression have significantly worse outcomes than HF patients who are not depressed.¹ The issue is becoming increasingly important because, unlike with many other cardiovascular diseases in this country, the incidence of HF is increasing. An estimated five million Americans have the disease, with 550,000 new cases being diagnosed each year. Although studies suggest that as many as 20%–50% of HF patients are depressed, the condition goes undiagnosed and untreated in many of these patients.

Investigators acknowledge that detecting depression in a patient with HF can be challenging because some of the symptoms of depression—such as fatigue and low energy levels—mimic the symptoms of HF. Nonetheless, the benefits of early diagnosis and treatment of depression in these patients could be immense when you consider both the improvements in quality of life as well as the reductions in utilization that could potentially be achieved.

Although experts in this field urge PCPs and cardiologists to implement effective screening procedures for depression in HF patients, researchers are in the process of developing an intervention strategy designed to treat both HF and depression at the same time without a major realignment of healthcare resources.

Pilot to examine thresholds for treatment

The negative effect of depression on many different types of chronic disease, including coronary heart disease, is widely recognized, but studies have only recently looked at the specific relationship between depression and outcomes in HF patients. And what investigators have discovered is that depression may be as important a risk factor in these patients as high cholesterol or hypertension. In fact, in a study published earlier this year by Sherwood, et al., investigators found that HF patients

with depression were more than 50% more likely to die or be hospitalized for their condition than patients who were not depressed.¹

Although it is intuitive to conclude that treating the comorbid depression in HF patients would improve outcomes, researchers at the University of Pittsburgh are seeking to amass more specific information about how and when you should treat an HF patient. “One of the goals of our pilot study is to identify the appropriate cut-off points for treating depression [in HF patients],” says **Bruce Rollman, MD, MPH**, an associate professor of medicine and psychiatry at the University of Pittsburgh School of Medicine and the principal investigator of the study. “We are focusing on the more severe HF patients, the class IIs, IIIs, and IVs. And what we don’t know is whether or not the threshold for treating depression in a class IV patient might be different than for a class II patient because some of the symptoms of depression overlap with the HF.” Rollman adds that there may also be different optimal cut-points for men and women, as there is some evidence that the thresholds for treatment may be influenced by gender differences.

In addition to establishing thresholds for treatment, investigators are also testing the efficacy of a collaborative care approach that is modeled after an intervention now under study in a National Institutes of Health–funded clinical trial dubbed “Bypassing the Blues.” In that NIH-funded project, Rollman and colleagues are investigating whether treating depression makes a difference in patients who have undergone coronary artery bypass graft (CABG) surgery. However, Rollman suggests that the intervention utilized in that trial is similar to the approach that will be used in the HF study.

“We have nurses who telephone patients [to discuss] their depression following the bypass surgery, and it involves a lot of patient preference,” says Rollman. For example, he points out that patients who are already

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Heart failure

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on seven or eight medications might be reluctant to add an antidepressant to their complicated medication regimen. Consequently, the nurse care managers will discuss therapeutic options with the patients, do lesson plans with them, and then make recommendations to their physicians. "If we can't get people better, or if they have a lot of complex issues such as a marital separation or a job loss, then we refer them to a mental health specialist in the community," says Rollman. "[Further], the nurse care managers call patients to make sure they keep their appointments—so they monitor adherence."

Although the nurse care managers have no special training in mental health, Rollman explains that they are involved with weekly case review sessions in which they discuss new patients, patients who are not doing well, and other concerns with three specialists: Rollman, the project coordinator, who is a psychologist, and a study psychiatrist. "In an hour we might review 20 patients or more, and we have a registry, so it is all in accordance with the chronic care model," he says.

In cases in which the patient is interested in medication for his or her depression, the doctor has to prescribe it, and the patient has to pay for it, says Rollman, emphasizing that there is no pharmaceutical funding involved with the study. "We are not examining whether one drug works better than any other. We are

really examining the broader issue of whether effective depression care can reduce cardiovascular morbidity and healthcare costs. And we eventually hope to do the same with the HF study."

The goal is integration

In designing the HF/depression program, Rollman says, the underlying economics, or how you pay for depression care, is a high-priority issue. Consequently, the ultimate idea is to develop a model for depression care that can be integrated into already existing HF programs. "These programs are already up and running, so we don't want to create a parallel program . . . where you have an HF care manager, and then you also have a mental health or a depression care manager," he says. "If we could develop a blended model, then if proven effective, our model of care is more likely to get picked up by other healthcare organizations."

Through this approach, the cardiovascular care manager or the person in charge of monitoring a patient's HF can also take charge of the depression care, explains Rollman. "The basic principles are generally the same: regular follow-ups, monitoring adherence, and adjusting care when necessary," he says.

Rollman acknowledges that it will take more than this initial pilot study to determine whether the blended

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model that he and his colleagues envision for treating HF and depression will deliver cost savings. However, results from the “Bypassing the Blues” clinical trial, which is already under way, will shed some light on the financial effect of providing depression care to patients with heart disease. Certainly, HF patients tend to be older and sicker than patients who have undergone CABG surgery, but both sets of patients are similarly affected by comorbid depression.

For example, studies have shown that cardiac patients with depression are less likely to adhere to their cardiac regimen, whether that involves watching their diet, taking prescribed medications, or weighing themselves. By improving adherence, Rollman theorizes that patients may be less susceptible to adverse events that could land them back in the ER or the hospital.

Aside from the psychological effect of depression, there may be bio-physiological effects as well, according to **Wei Jiang, MD**, a medical psychiatrist at Duke University Medical Center in Durham, NC, who has done extensive research about the effect of depression on patients with heart disease. For example, she points out that depressed patients have altered blood aggregation properties and elevated immune-inflammatory responses, and there is a decrease in the heart’s ability to respond to stress, although it is unclear how these mechanisms correlate with depression.

Whatever is at work in HF patients who are depressed, Jiang’s research suggests that these patients are at much higher risk of mortality in the long term than HF patients who are not depressed. This is true even of patients who are mildly depressed, according to a study Jiang presented to the annual scientific session of the American College of Cardiology meeting in Orlando in March 2005.

In that study, Jiang followed 1,005 HF patients for seven years to determine the ability to predict mortality based on the scores on the Beck Depression Inventory (BDI), a standard depression screen.

On the BDI, a score of 10 is considered mildly depressed—with higher scores indicating more severe

depression. In Jiang’s study, patients who had a score of 10 or higher had a 44% greater risk of dying than patients who were not depressed. When the threshold was lowered to a score of 7 or higher, the risk of mortality jumped to 51%.

Consider depression in HF patients

Although these results are striking, the high incidence of depression in cardiac patients is generally well-known. The million dollar question, according to Jiang, is why cardiologists and PCPs are not more attuned to the issue. She speculates that part of the problem is that patients rarely report that they are depressed. “The chance that patients will come in to talk to their nonpsychiatric doctor about how depressed they are is [practically] nonexistent,” says Jiang. “They go to the doctor and talk about other things. Maybe they are stressed out, maybe they have a lot of physical conditions, or maybe they just feel miserable. Rarely will they say they are depressed.”

In addition, Jiang points out that nonpsychiatric physicians may feel they simply don’t have the time to deal with mental health issues, and they often lack training in this area. “They may not feel comfortable managing these types of problems,” adds Jiang.

To get around this issue, Jiang suggests that there are many validated depression screens, such as the BDI, that can be self-administered, and therefore do not take up too much time.

“Cardiologists need to keep in mind that depression is very common among HF patients,” says Jiang. “If they [see signs] that there are any abnormalities in this area, they can refer the patient to psychiatric care or start a patient on an antidepressant and initially watch them to see if there is a response.”

In fact, Jiang is currently investigating whether treating depressed HF patients with an antidepressant has any effect on their outcomes. Those results should be available in about one year. ■

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Alternative procedures for prostate cancer

Researchers make strides toward more effective screening

Prostate cancer is the most common cancer in American men, with more than 234,000 new cases diagnosed each year, according to some estimates. However, screening for the disease remains controversial because scientists have yet to prove that current screening methods—which primarily rely on the prostate specific antigen (PSA) test and a digital rectal exam—actually save lives.

Although there is no question that these tests detect cases of prostate cancer, neither test offers a 100% accuracy rate. As a result, prostate cancer is not identified in some men who undergo screening, and others undergo invasive follow-up testing procedures even though they do not have the disease.

Recognizing the clear need for more accurate screening procedures, a number of researchers are looking into alternative approaches that show promise for offering improved results.

For example, investigators at Johns Hopkins University School of Medicine in Baltimore believe they have identified a better marker for prostate cancer that not only offers a higher degree of accuracy than PSA levels, but also enables clinicians to differentiate between cancers that have spread beyond the prostate from cancers that are confined to the single organ. In addition, evidence is mounting that by looking at PSA velocity (PSAV) in addition to PSA levels over time, clinicians can more accurately gauge whether a patient should be further evaluated for prostate cancer.

Reliability is the issue

Investigators at the Johns Hopkins Division of Adult Urology decided to look more closely at PSAV because data from the *Prostate Cancer Prevention Trial*¹ made it clear that although a high PSA level can be a marker for prostate cancer, there really is no PSA level at which the clinician can reassure a patient that he does not have prostate cancer, according to **H. Ballentine Carter, MD,**

the lead investigator of the study. In other words, the lack of specificity in the PSA test makes it difficult to determine when a patient should undergo further testing, such as a biopsy.

“No matter what cutoff you choose, and no matter how low you go, you could miss significant cancers,” explains Carter. Conversely, many men who do not have cancer may be targeted for a biopsy, which comes with certain risks and costs. “We were looking for a measure that would more reliably predict the presence of prostate cancer,” adds Carter.

To examine whether PSAV could help clinicians make better decisions regarding screening, Carter and colleagues looked at serum samples that were taken and frozen from participants as long ago as 1958 as part of an ongoing study of men’s health. What they found was that PSAV, determined at a time when PSA levels would not have triggered a biopsy, was predictive of death from prostate cancer 20–30 years later.

The researchers found that men who had a lower PSAV had a 92% chance of not dying from prostate cancer 25 years later, whereas those who had a higher PSAV had a 54% chance of not dying from the disease. Put in other terms, the rates of prostate cancer death were 1,240 in 100,000 for men with a high PSAV, and 140 in 100,000 for those with lower PSAV levels. The findings suggest that by looking at PSAV, clinicians can potentially identify men with aggressive prostate cancers at a time when the disease is curable.

In order to take advantage of these new findings, Carter is recommending that men undergo baseline PSA/PSAV testing at age 40 so that they will have a measurement with which to compare later PSA test results. Carter emphasizes that he is not suggesting that men should begin regular screening for prostate cancer at age 40.

“What I am recommending is a baseline PSA at age 40, and then perhaps another one at age 45, so that by the time a man is 50, and he begins regular screening,

you already have a lot of information to compare to PSA levels that will be accumulated," says Carter.

In determining what PSAV levels should prompt a cause for some concern, Carter says that just as men with bigger prostates tend to have higher PSA levels, they also tend to have faster rates of rising PSA levels. Consequently, a patient with a low PSA, in the two to three range, should not have a rapid rise in their PSA level.

"We have shown that if [the person] has a PSAV greater than 0.3 or 0.4, he may not have a life-threatening cancer right then, but he is statistically more likely to die of prostate cancer over the next two to three decades," says Carter. "So the person whose PSA is increasing at that rate should be watched more carefully, if not biopsied."

Alternatively, researchers identified a different cutoff point for men whose early PSA readings tended to be higher, in the four to 10 range. "The velocity cutoff that we found was important was 0.75 nanograms per milliliter," says Carter. "That should trigger concern about the presence of cancer [in these men]."

Although some guidelines already take into account the predictive value of PSAV, Carter points out that expert panels are in the process of revising their recommendations to reflect his and other findings from the past year. He expects new guidelines to emphasize baseline PSA testing at a younger age, as well as the importance of paying attention to changes in PSA levels rather than absolute PSA levels. Adds Carter, "Rather than prompting a biopsy on everyone who reaches a certain point, I think there is going to be more emphasis on how fast the person got to that point."

Down the road, it is possible that PSAV may be used as a way to rule out the need for further screening in some men. "Let's say a person reaches a certain age, and he maintains a particular PSA that is below a certain level," explains Carter. "We are looking at the safety of telling an older person that he doesn't really need to have any further PSA testing because he is not at risk of ever developing anything life-threatening. We are looking carefully at that right now."

New test shows promise

Although Carter's work suggests the accuracy of PSA testing can be improved, other research suggests that a different blood test could ultimately prove to be a better tool for prostate cancer screening. Another group of researchers at Johns Hopkins has published work suggesting that a blood test based on the protein EPCA-2 (early prostate antigen-2) is not only considerably more accurate than the PSA test in identifying patients at risk for prostate cancer, but it can also distinguish between cancers that are confined to the prostate and cancers that have spread to other organs.²

"That is probably the biggest [advantage], because right now what we have is a tool that can identify men with prostate cancer, but a large number of men with prostate cancer don't die from their disease, so we need better tools that separate the men with prostate cancer that is never going to kill them in their lifetime from the group of men with prostate cancer that will, indeed, give them problems," says **Robert Getzenberg, PhD**, the director of research at the James Buchanan Brady Urological Institute at Johns Hopkins and the lead author of the study. "And I think that the distinction that we found with EPCA-2 has the potential to do that."

In the study, researchers measured EPCA-2 levels in blood samples from 330 patients. Patients were separated into several groups, ranging from men with normal PSA levels and no evidence of disease to men with normal PSA levels that did have prostate cancer. Patients with an EPCA-2 cutoff level of 30 nanograms per milliliter or higher were considered to be at risk for prostate cancer. Overall, the test identified 94% of the men with prostate cancer. In addition, the results showed that men with cancers that had spread beyond the prostate had significantly higher EPCA-2 levels than the men whose cancers were confined to the prostate.²

The results thus far are preliminary. However, several clinical trials involving EPCA-2 are currently under way, and if they validate these early findings, Getzenberg suggests that the new blood test could be FDA-approved

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Prostate cancer

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and available for use in 2009. "I think the first step will be to see if we can use the EPCA-2 test together with the PSA test," he says. "But assuming that all of these values hold up over time, I would envision that with a marker with these characteristics, you wouldn't need to run [the PSA test] anymore. We have to do some more work, and it is going to take some time to get that done."

If the test is ultimately approved for use, Getzenberg says that labs across the country should have no trouble implementing the EPCA-2 test because it is a simple antibody test that should be easy to standardize. Further, with large-scale use, Getzenberg is hopeful that the new

test will enable physicians to do a much better job of distinguishing between the men who need to undergo prostate biopsies from the men who have elevated PSA levels but do not have prostate cancer. "With the doubling of the population of older men that is going to happen in the next 10 years, we think this test is going to be critical," adds Getzenberg. ■

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1. *The Prostate Cancer Prevention Trial* is an intergroup study implemented at 219 sites in the United States and Canada. The study was activated in October of 1993 and enrolled its last participant in May 1997.
2. Getzenberg, et al. "EPCA-2: A Highly Specific Serum Marker for Prostate Cancer." *Urology* 2007; 69: 714-720.

Advocates make the case for expansion of CHC system

Report: Community health centers deliver

Although no single initiative can effectively blunt spiraling healthcare costs in this country, at least some policymakers believe that a significant expansion in the network of federally supported community health centers (CHC) could not only save the country as much as \$40 billion in medical expenditures annually, but also provide access to care for 30 million Americans by 2015.

That, at least, is the contention of a new report issued by the Washington, DC-based National Association of Community Health Centers (NACHC) and the Robert Graham Center of the American Academy of Family Physicians, in conjunction with Bethesda, MD-based Capital Link.

The report, *Access Granted: The Primary Care Payoff*, suggests that medical costs for patients who get most of their care through CHCs are as much as 41% lower than for patients who get most of their care elsewhere, according to 2004 data derived from the *Medical Expenditure Panel Survey* (MEPS), which was analyzed by investigators from the Robert Graham Center.

This represents per-person savings in the amount of \$1,810 annually, or overall savings to the healthcare

system of \$9.9 billion to \$17.6 billion per year, according to the report.

As a result of these findings, NACHC is urging legislators to increase federal support for CHCs from the current \$2 billion per year to \$5 billion annually.

Primary care is the key

Critical to the success of the CHC concept is its emphasis on delivering primary, preventive care, says **Virgilio Licona, MD**, a family physician at Plan de Salud del Valle, Inc., a CHC that serves communities in eastern Colorado. Licona discussed the report's findings at an August 6 news conference in Washington, DC. "The dollars we are talking about in terms of savings are accrued by using a family-centered, medical home [model] which is the basis for primary care in community health centers," said Licona, adding that many of the CHCs offer dental care and behavioral health as well as basic preventive care all under the same roof. "When you combine these things in an integrated fashion the way we do in our CHC in Colorado, you are able to look at issues before they become problematic in some cases, and when they do become problematic,

you can really focus on what you need to do to turn those things around.”

Although many prominent healthcare organizations—including the American Academy of Pediatrics, the American Academy of Family Physicians, and the American College of Physicians—support the medical home concept, Licona pointed out that unlike many other industrialized nations, the larger healthcare delivery system in this country does not have a primary care base. Consequently, he noted that the approach utilized by the CHCs is unique in that regard. “This study really validates the importance of [establishing primary care as a basis for healthcare delivery], not only for the quality of care that we are able to provide daily, but more importantly for the dollars that we can save,” said Licona. “It is validating what we are doing in economic terms, which I believe is the language we need to be speaking if we are to affect policymakers in terms of redirecting our system.”

Given that the report’s findings suggest that regular primary care can head off ER visits, hospital admissions, and other expensive medical events, it stands to reason that extending primary care to more Americans makes good economic sense, explained **Dan Hawkins**, policy director for NACHC. “Nearly one in every five Americans . . . has no regular source of primary care,” he said, noting that the CHCs keep these numbers from being even greater. “Community health centers saved the health system—both public and private payers—between \$10 billion and

\$17 billion dollars last year alone, and those savings could grow to more than \$40 billion by 2015 if Congress is willing to invest the dollars needed to expand CHCs to serve 30 million people by then.”

CHCs offer economic dividends

The report also makes that case that on top of the savings accrued from primary and preventive care, CHCs also serve as economic engines for the mostly low-income communities in which they are located. To assess this impact, analysts from Capital Link looked at the CHCs’ direct economic effect on their communities, their indirect effect, and what Capital Link refers to as their induced effect, explained **Allison Coleman**, CEO of Capital Link.

As far as direct effect is concerned, Coleman noted that the 950 CHCs operating in 2005 injected nearly \$7.3 billion into their communities simply through their operations and directly employed about 90,000 full-time employees. In addition, Coleman noted that the CHCs indirectly contributed another \$1.1 billion by purchasing goods and services from other businesses in their communities.

Coleman also pointed out the induced effect, referring to the economic activity that occurs when employees of the CHCs buy groceries, pay rent, and purchase other goods and services in their communities. “These

> *continued on p. 120*

Figure 1: Total economic activity stimulated by federally funded community health centers’ operations, 2005

	Total economic impact	Employment (full-time equivalents)
Direct	\$7,261,975,096	89,922
Indirect	\$1,124,387,922	10,233
Induced	\$4,172,328,893	42,918
Total	\$12,558,691,911	143,073

Note: Total economic impact includes value-added impact. Payroll (value-added), estimated at 73% of operating expenditures, is based on Capital Link’s financial database fiscal year 2005 median value for health centers nationally. Each full-time equivalent (FTE) denotes one full-time employee. Total FTEs denote total work force generated by health centers.

Source: Capital Link, Inc., with MIG, Inc. IMPLAN Software Pro version 2.0.1025 and 2004 structural matrices with the 2002 state level multipliers. Direct CHC operating expenditures derived from Bureau of Primary Health Care, HRSA, DHHS, 2005 Uniform Data System.

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expenditures generated almost \$4.2 billion in induced economic activity," she said.

When all three economic dimensions are considered, Coleman said that the CHCs contributed a total of \$12.6 billion and produced 143,000 jobs in 2005.

Big obstacles remain

Senator Orrin Hatch (R-UT) and Senator Ted Kennedy (D-MA) are cosponsoring a bill that would reauthorize funding for CHCs with the spending targets advocated by NACHC, and a similar bill is pending in the House. However, even with passage of the legislation, it's clear that additional steps are needed to expand the reach of CHCs in the way that NACHC envisions.

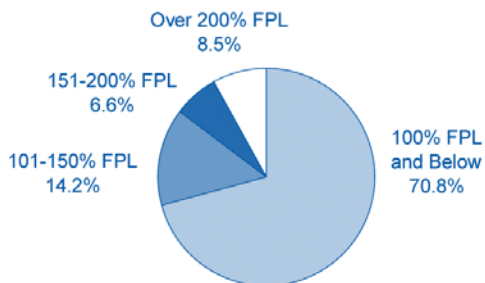
For example, the report points out that both NACHC and Capital Link surveys indicate that many CHCs operate in buildings that are outdated, yet new construction or remodeling cannot be funded through federal grant dollars.

Further, additional funds are needed for technical improvements such as implementation of electronic medical records and other innovations that can facilitate basic DM tasks.

However, the NSCHC report acknowledges that the biggest challenge to overcome in expanding the reach of CHCs may well be the continuing shortage of PCPs. To that end, NACHC intends to focus exclusively on this issue in an upcoming report. ■

Community health centers: A medical safety net for the poor and the young

Health center patients by income level, 2006

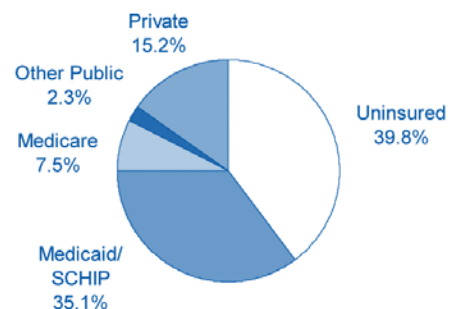


Note: Federal poverty level (FPL) for a family of three in 2006 was \$17,170. (See <http://aspe.hhs.gov/poverty/06poverty.shtml>.) Based on percent known. Percents may not total 100% due to rounding.

Source: Bureau of Primary Health Care, HRSA, DHHS, 2006 Uniform Data System.

Federally supported community health centers (CHC) provide care to any person regardless of their insurance status or ability to pay for the visit. However, they primarily serve low-income individuals, with seven out of every 10 patients living in poverty, according to data from the National Association of Community Health Centers (NACHC). It is also clear that they serve a relatively young population, according to **Dan Hawkins**, policy director for NACHC, who spoke about the activities of CHCs at an August 6 news conference in Washington, DC.

Health center patients by insurance status, 2006



Note: Other Public may include non-Medicaid SCHIP. Percents may not total 100% due to rounding.

Source: Bureau of Primary Health Care, HRSA, DHHS, 2006 Uniform Data System.

"Of the 16 million people served by CHCs, more than 5.5 million are children and adolescents under the age of 19, and 2.5 million of these individuals received immunizations from CHCs last year," said Hawkins. In fact, Hawkins noted that 3.5 million of the 45 million visits made to CHCs last year were specifically for immunizations, making them the second most frequent type of visit to a health center.

"The only type of visit [that was more frequent] was for well-child care. There were 3.6 million of those visits last year," he said.