

DM DISEASE MANAGEMENT ADVISOR™

EHR platform is at the heart of QI effort **Missouri aims to transform** **care of chronically ill** **Medicaid recipients**

Missouri's Division of Medical Services is implementing a new program that attempts to leverage the power of new technology, community-based support, and provider-focused performance reports to dramatically transform its approach to caring for chronically ill Medicaid recipients. The state's chronic care improvement program (CCIP) is targeting a group that comprises only 20% of all Medicaid recipients in the state, but accounts for nearly 80% of the organization's costs. The state believes that better management of this population will not only improve the care of, and the quality of life for, chronically ill Medicaid recipients, but also deliver cost savings over the long term.

Silver Spring, MD-based APS Healthcare, which has been working closely with the state to implement and

manage the program, has brought sophisticated case-finding and risk-stratification tools to the table, as well as healthcare coaching and other interventions aimed at helping individuals manage their conditions. However, the linchpin of the program is an electronic health record (EHR) that is designed to ensure that all of the providers involved in a patient's care are on the same page.

State takes a long-term perspective

Missouri became convinced that a broader focus on the chronically ill was needed following the implementation of a small DM program that yielded positive results but was too

limited in scope. "We were seeing about a 2.5 to one ROI from that effort, but what we learned from that is that people who are chronically ill don't usu-

"There is an opportunity for providers to be armed with some really critical quality and historical data that can reduce medical errors, reduce medication errors, and reduce redundancy within the system."

—David Hunsaker

ally have a single disease," says **George Oestreich, PharmD, MPA**, deputy director of Missouri's Division of Medical Services. "Thus, the DM perspective of [focusing on a single disease] without considering comorbidities would not likely ever realize the results we hoped to attain."

Although Medicaid recipients can be transient, shuttling in and out of the system, Oestreich notes that this is not necessarily the case with the chronically ill. "Many of these recipients fall in our permanently and totally disabled category, so in all likelihood they will remain Medicaid recipients for a very long time," he says, noting that this gives the state the advantage of being able to operate with a long-term perspective in mind.



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CMS is gearing up for a demonstration that will target younger, healthier seniors with private sector-tested interventions.

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It is the deadliest cancer by far—largely because it's rarely detected early on. However, new screening approaches may soon give providers and patients powerful new weaponry against this disease.

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That is the approach behind The American Pharmacists Association Foundation's Diabetes Ten City Challenge. The organization is trying to show that results from the much-heralded Asheville Project can be replicated in other regions as well.

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Under the new CCIP, which began enrolling patients in November 2006, any Medicaid recipient with a diagnosis of diabetes, asthma, gastroesophageal reflux disease, chronic heart failure, or sickle cell anemia is eligible to participate. However, with the assistance of claims analysis and risk-stratification tools, the state is proactively targeting recipients at highest risk for these diseases first.

Typically, the first outreach to a recipient is by phone, but once the person agrees to participate in the program—participation is voluntary—the process is handed off to his or her PCP or the physician who has been primarily

involved with his or her care. Oestreich explains that the state is able to get physicians on board with the program by paying them an extra fee over and above the traditional office visit fee to carry out a risk assessment of the recipient and make sure the data from that assessment are entered into the program's EHR.

“One of the biggest things we find in the physician population . . . is that they are reluctant to engage some of the Medicaid patients because the Medicaid patients [themselves] are not engaged.”

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PharmD, MPA

The EHR will then automatically generate a plan of care based on all of the patient information that has been entered, claims, pharmacy data, and rules that have been built into the platform based on evidence-based guidelines. The physician is then free to modify the plan so that it ultimately becomes tailored to the individual patient's needs.

Usability wins over providers

In designing the EHR platform, what APS and the state had in mind was a tool that could perform many functions and serve as a clearinghouse for information, says **David Hunsaker**, president of APS Public Programs. “What we wanted to do was build a tool that would integrate information across the community and allow all the substantive members of the team . . . involved in a person's care—the consumer, the provider, the care management staff for APS, and others—to be able to interact using a common electronic tool,” he says. Consequently, built into the tool is the ability to look at eligibility and demographic data, claims, information about past procedures, and pharmacy data—all of which, Hunsaker notes, is incorporated on a real-time basis. “There is an opportunity for providers to be armed with some really critical quality and historical data that can

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reduce medical errors, reduce medication errors, and reduce redundancy within the system.”

Oestreich acknowledges that there typically is some initial resistance from providers due to the amount of data entry tasks that are necessary in order to populate the EHR, but he maintains that most providers become cooperative once they understand the value that the tool brings to their practice.

“By engaging the call center into the coordination-of-care opportunity, there are fewer missed appointments, and a [greater] opportunity for the patient to respond to the physician’s goals and guidelines for treatment,” he says.

These patient-support functions are critically important—especially in Medicaid populations, adds Oestreich. “One of the biggest things we find in the physician population . . . is that they are reluctant to engage some of the Medicaid patients because the Medicaid patients [themselves] are not engaged,” he says, noting that the reason for this is that patients do not clearly understand what is expected of them. The state is hoping that establishing an electronic communications link between patients and all of their providers will lead to improvements in patient adherence and compliance.

Oestreich adds that the tool also facilitates patient self-reported information, which could give the provider added perspective on the patient’s general knowledge of his or her disease as well as information regarding over-the-counter medications or other treatment modalities that the patient may be using.

In addition, the EHR platform includes an e-prescribing function that interfaces with the system’s clinical rules engine that monitors and modifies the state’s prescription program.

In some instances, getting providers to perform more functions electronically has been a challenge. However, Hunsaker points out that once providers use the EHR system, they tend to like it.

“Our current practice is to try to meet people where they are, so if someone has to deal with us by phone or by fax . . . when we interact with them we try to take

them to the Internet so they have the opportunity to see the . . . universe of information that is available to them,” he says. “Once they . . . interact with us and the state in a much quicker and efficient way, often they will quit using older technologies.”

Provider feedback facilitates QI

One other capability that the EHR system brings to the table is performance monitoring and measurement.

The state hopes that if individual providers receive feedback about their own performance on a range of indicators culled from evidence-based guidelines, quality will gradually improve.

“Most of the studies that I have seen indicate that it is often five to ten years before evidence-based care makes its way down to routine practice in the community.”

—David Hunsaker

Oestreich points out that the state is beginning with quality indicators (QI) that are well accepted, such as HbA1c targets, foot care, and retinal exams for diabetic patients, and peak flow readings and asthma-related ER visits for asthmatic patients.

The approach has been designed with input from practitioners in mind, adds Oestreich. “What we try to do is let our providers know that they will be measured against themselves and their effectiveness with their panel of patients,” he says, noting that a frequent complaint of practitioners is that they are at a disadvantage when performance comparisons are made because they have a sicker population of patients than some of their peers. “We are not trying to compare a rural Missouri, high-intensity practice with a metropolitan practice that would be more [involved with providing] basic care without the severity level of illness.”

The idea behind this type of feedback is to get providers on board with evidence-based care practices as quickly as possible.

“Most of the studies that I have seen indicate that

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it is often five to ten years before evidence-based care makes its way down to routine practice in the community," says Hunsaker. "By using systems like this . . . it starts to shorten the cycle time involved with that learning process."

Community focus nurtures acceptance

Another core component of the CCIP is an emphasis on community-based care. Rather than having a centralized call/coaching center that serves all patients, APS is beginning to station health coach and care management personnel directly into large practices, ER facilities, and other high-volume care settings.

The approach facilitates more face-to-face encounters between patients and care coaches, and providers get a firsthand look at some of the interventions that are being employed for their patients.

"By doing that, [the care coaches] become much more a part of that community practice," says Hunsaker.

In some cases, the state has even been able to work out cost-sharing arrangements in which a health coach who is placed in a high-volume practice serves not only Medicaid recipients, but also patients being cared for by that practice.

Such arrangements are prime opportunities for the state, according to Oestreich. "We have found that reaching back to the community to try to find unique ways to integrate our needs into their needs really [nurtures] acceptance of the program," he says.

To achieve greater cost efficiency, APS has tapped into resources available through the government's AmeriCorps program to place lay health educators in community settings.

Traditionally, administrators of AmeriCorps have solicited matching funds from community health centers and then augmented those funds with federal dollars to place a lay health educator in a community setting for two years. "What we have done is provided the local

matching funds so that the centers, which are often strapped for funds, are not charged," says Hunsaker. "Their part of the [cost] sharing is granting the physical space, phone, and the various tools the lay health educators need to do their job."

The lay health educators typically perform nonclinical tasks such as resolving transportation difficulties, making sure patients get their

prescriptions filled, and making reminder calls when patients are scheduled for appointments. Hunsaker explains that the approach is aimed at providing the kind of "high-touch" outreach that is particularly important to activating patients who are critically ill or morbidly depressed.

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Enrollment still underway

The state is still in the early stages of enrolling patients in the CCIP.

At presstime, 90,000 recipients, primarily located in the high-density corridor between St. Louis and Kansas City, MO, were enrolled in the program, but Oestreich points out that there are 130,000 recipients outside of this corridor who have yet to be contacted. He is hoping to have the program fully operational statewide within the next two years.

It is still too early to report clinical or financial results from the effort, but Hunsaker and Oestreich say that early indications are positive, and they are confident that the approach will deliver dividends.

"It's an opportunity to do things that people have talked about quite a bit but have not necessarily acted upon," says Hunsaker. "We think the results are going to be pretty exciting." ■

SRRD will target a broad spectrum of seniors

CMS readies a bold new demonstration aimed at putting the focus on prevention

Sometime this summer CMS will announce which five vendors it has selected to participate in its Senior Risk Reduction Demonstration (SRRD), an entirely new program—and a new direction for CMS—that targets a relatively young and healthy population of Medicare beneficiaries. The program’s purpose, according to CMS, is to see whether lower-level preventive interventions deployed early on will ultimately deliver clinical and financial dividends by preventing or delaying the onset of chronic disease and disease-related complications.

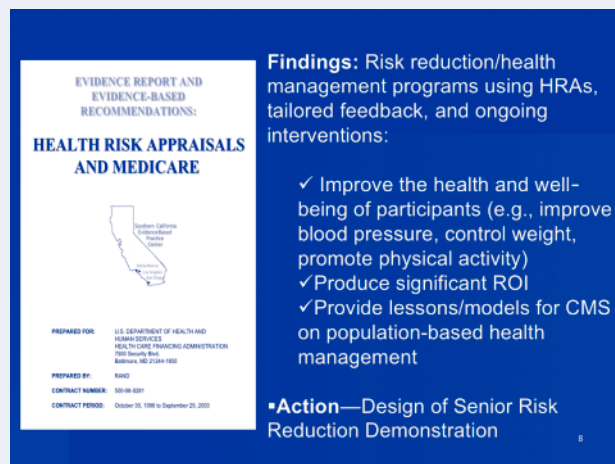
CMS, noting that the approach is focused on health promotion and disease prevention as opposed to DM, says it wants to determine whether health-risk–reduction programs that have been effective in the private sector can be tailored to produce results in Medicare populations as well. Although the official start date of the three-year demonstration appears to be still a year or more away, the approach is generating interest, especially among advocates of early intervention and prevention. Further, if the approach bears fruit, it could not only affect the health of a huge portion of the population but also give Medicare an appealing weapon for controlling long-term costs.

Evidence supports a risk-reduction focus

CMS has good reason to believe that this new direction has merit. A report commissioned by CMS from the RAND Corporation, the Santa Monica, CA–based think tank, concluded that risk-reduction programs that begin with the administration of a health-risk assessment (HRA) and include tailored follow-up interventions can beneficially affect behavioral, physiological, and general health-status outcomes (see **Figure 1**).

“There has been a growing base of literature supporting [the contention that] multicomponent health-promotion programs that engage participants in self-care and increase their involvement in healthcare decision-making, can achieve long-term behavior change and health-risk

Figure 1



Source: CMS.

reduction in large populations,” says **Pauline Lapin, MHS**, a technical advisor in the Division of Health Promotion and Disease Prevention Demonstrations at CMS. Ultimately, CMS plans to invite as many as 85,000 Medicare beneficiaries between the ages of 67 and 74 to participate in the demonstration. CMS says it hopes to attract a broad spectrum of participants, but in a departure from the approach of the Medicare Health Support program—another large CMS program targeting chronically ill beneficiaries—administrators emphasize that they are not specifically looking for seniors with chronic disease.

“This is not a DM demonstration. It is more of a health management demonstration,” Lapin says. “There is some overlap, but the whole point is that CMS has provided services on one end of the health spectrum, and we are now trying to explore ways to provide services to people on the other end of the spectrum.”

In fact, plans for the SRRD were developed even before the Medicare Health Support program began enrolling patients, notes **Sidney Triegeer**, director of the

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Division of Health Promotion and Disease Prevention Demonstrations. “We view this as a very different program than Medicare Health Support,” he says. For example, vendors will not be put at full risk the way they are under the earlier program.

Model takes a broad approach

Already tapped to design and implement the SRRD are the Cornell University Institute for Policy and Research in Ithaca, NY, and Washington, DC-based Thomson Healthcare, partnering organizations that won the assignment with a proposed model that initially targets 17 health risks, ranging from obesity and tobacco use to lack of transportation and high stress (see **Figure 2**).

“It is not a specific category of risks . . . but it is any and all of the above risk factors and a kind of multicomponent, comprehensive risk-reduction program,” says **Ron Goetzel, PhD**, a vice president at Thomson Healthcare and director of the Institute for Health and Productivity Studies at Cornell. “There are a lot of reasons why we [adopted a] broad rather than a narrow [approach], one of which is that peoples’ risks travel together. People who have one risk often have other risks as well.”

The model is designed to take some of the lessons learned from 20–30 years of experience in providing health-promotion programs to employees and health plan members, and see whether at least some of those lessons can be applied to the Medicare population, Goetzel explains.

“Medicare traditionally has not really done very much with prevention and health promotion other than paying for screenings and certain procedures,” he says, noting that statistics suggest that the potential for such a health-promotion program is huge. “A very small minority of the Medicare population has a lot of illnesses and [accounts for] close to half of total Medicare expenditures. But on the flip side of that, about half of all Medicare beneficiaries consume very [few medical resources], so there is a fairly large segment of the population . . . that is relatively healthy, and the idea is to keep these people healthy to begin with.”

Interventions based on behavioral theory

The first step for participants who agree to participate in the demonstration will be to complete an HRA. At least initially, the goal of the HRA is to serve as an awareness-building tool to heighten the participants’ knowledge of their risks and health status, Goetzel says.

However, vendors will also use the tool to triage people toward risk-specific interventions. Once a participant gets triaged into a higher or lower risk category and gets targeted for specific types of intervention, the vendor will send educational materials and information over the telephone, through the mail, or via the Internet. Depending on an individual’s needs, the intervention may take the form of regular health coaching or counseling offered by phone or a series of educational mailings about a particular health issue of concern to that person.

“The idea is to provide as much or as little of this as is needed for the individual and to do it using behavioral theory,” says Goetzel, noting that health coaches will rely on such techniques as motivational interviewing, assessing readiness to change, goal setting, and other approaches proven effective in producing lifestyle change.

In addition to providing counseling and education, the

Figure 2

Multiple risk factors, including...

- Physical inactivity/lack of exercise
- Poor nutrition
- Smoking/tobacco use
- Excessive alcohol consumption
- High blood pressure
- High blood glucose
- High total cholesterol
- Being overweight/obese
- Depression
- Inappropriate use of clinical preventive services
- High stress
- Lack of general well-being
- Social isolation
- Caregiving burden
- Falls (preventable accidents)
- Lack of motor vehicle/home safety
- Medication issues

Source: CMS.

intervention also includes a mechanism for referring participants to community-based resources that can assist them in working on the health-related risks and issues that have been identified. To accomplish this, communities involved with the demonstration will receive funds to set up Information, Referral, and Assistance (IR&A) programs. Goetzel emphasizes that the funding will not go toward paying for external resources such as health club memberships, for example. Instead, the IR&As will help direct people to senior centers, local YMCAs, and other organizations that can help them work toward their goals.

Physicians may be involved—or at least apprised of the SRRD activities—but their involvement is left up to the beneficiaries themselves, according to CMS. “The way it works is if the beneficiaries would like their feedback report, which is based on their responses to the HRA, to be shared with their physician, they will be offered that opportunity,” says Lapin, explaining that in these cases the vendor organization will mail the reports to the physicians. However, Lapin adds that even when the physicians do not receive the reports, the intervention supports their work with patients by providing counseling and support that physicians may not have much time to deliver during their encounters with patients.

Results could be powerful

The demonstration is set up so that participants will be randomized into one of three study arms or a control group. Consequently, some participants will receive standard interventions, some will receive enhanced interventions—which include more frequent contact with a health coach—and some will receive an HRA and generic feedback (see **Figure 3**).

“The demonstration is designed to be as true an experimental study as you can get it to be,” Goetzel says. “The intent is to engage five vendors in this intervention. And the way the study is powered is that even if only one vendor shows significant findings, we will have enough of a sample size to see that. If all five vendors [show significant results], then obviously it is going to be quite powerful.”

As it stands now, CMS anticipates that a one-year

Figure 3

Description of Arms 1, 2, & 3

- Arms 1 and 2 include the following elements:
 - Centrally administered initial HRA assessment followed by a tailored feedback report
 - Prioritization of risk factors
 - Computerized triage of participants into various risk reduction modules
 - Tailored risk reduction materials delivered via mail, Internet or telephone (health coaching) to program participants
 - Linking participants with national or community resources
- Arm 3 includes HRA + generic letter

Source: CMS.

pilot of the approach will begin within three to four months after it selects the participating vendors this summer. CMS will use the pilot phase to iron out any problems and make sure that all of the processes involved with the demonstration run smoothly.

Then, about six months following initiation of the pilot, enrollment in the three-year demonstration will begin.

CMS says it is interested in comparing outcomes related to behavior change and medical expenditures in the various arms of the demonstration and how these results stack up against those from a group that will not receive any intervention.

If the intervention delivers positive results, CMS could go forward with further demonstrations, perhaps on a larger scale, or it could ask Congress to consider making the intervention a full benefit of Medicare.

Putting the focus on prevention should pay off in the long run, according to Goetzel.

“Eventually, you are going to save more money if you prevent people from getting sick than if you try to get sick people to all of a sudden become healthy, so there is merit to getting people at whatever age . . . to begin to adopt healthy lifestyle habits because it will make a difference,” he says. ■

Early detection is a top priority

Potential new options for lung cancer screening

One of the more pressing concerns in medicine these days is the need for an effective screening test for lung cancer, the leading cause of cancer deaths in this country among both men and women. As with many cancers, the five-year survival rate is good if lung cancer is detected in its early stages. However, because this is seldom the case, the overall cure rate for lung cancer is just 5%. To present the problem in an even more stark perspective, lung cancer takes more lives each year than cancers of the breast, colon, cervix, and prostate combined.

Part of the problem is that most people do not experience symptoms from lung cancer until it has advanced to the point at which treatment is unlikely to offer a cure. Some studies have shown annual low-dose CT screening can detect lung cancer at an early stage, but this method is controversial, because no randomized controlled trials of the approach have yet been completed. There is also concern about the cost of this type of screening, the risks associated with radiation, and the adverse consequences of false-positive results. Consequently, guidelines do not recommend this type of screening.

Although researchers continue to evaluate the effectiveness of annual CT scans as a screening method for lung cancer, investigators are making progress with other potential screening methods that could be available to

physicians and their patients within five years.

Breath test shows promise

One promising development involves the use of a highly sensitive device that investigators report can pick up signs of early-stage lung cancer through a simple, no-risk breath test. "We have developed what is, essentially, the world's most sensitive [breath analyzer]," says **Michael Phillips, MD**, CEO of Fort Lee, NJ-based Messana Research, Inc. "It is about one billion times more sensitive than the kinds of [breath analyzers] that people use for alcohol measurement in the breath."

The Messana device picks up roughly 200 different volatile organic compounds in a person's breath, most of which are present in very low concentrations but reproducible and present in everyone's breath, says Phillips. Although most of these compounds are probably just products of normal metabolism, investigators have found that several are biomarkers of disease. The FDA already has approved the company's breath test for heart transplant rejection, for example. And work is under way on breath tests for pulmonary tuberculosis, breast cancer, and ischemic heart disease.

However, with respect to lung cancer, over several years, investigators have used sophisticated pattern

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recognition analysis to pinpoint a pattern of volatile, organic compounds in the breath that is distinctive to the disease. And the company has just published a National Institutes of Health (NIH)–funded study showing that the test predicted lung cancer with nearly the same degree of accuracy as CT screening in a group of 404 smokers and nonsmokers over the age of 60.¹ “Essentially, what we found was a confirmation of what we have found [in previous studies], only we did it rather more accurately this time,” says Phillips, noting that it was a multicenter study that included a group of patients with confirmed lung cancer and a control group that was cancer-free, according to CT scans.

Phillips emphasizes that he does not see the breath test as a replacement or substitute for CT scanning in the diagnosis of lung cancer. However, he points out that it does offer certain advantages over CT as an initial screening option. “You can’t get a chest CT for much less than \$2,000. We can do [a breath test] for far less than that. And it is completely safe; there is no radiation involved,” says Phillips. “It is very simple and very quick, and it only takes about two minutes of a patient’s time.”

Further, the process of collecting a breath sample is simple enough to be done in a doctor’s office with the assistance of an inexpensive breath-collecting device, according to Phillips. The instruments needed for analyzing the breath sample are sophisticated and expensive, but Phillips notes that you only need to have one lab equipped to conduct these analyses, and it can analyze hundreds of samples. For every test, the lab uses a mathematical algorithm to determine the probability that a person has lung cancer. How these results ultimately will be reported has not been formalized as of yet, but Phillips suggests that the risk level could be reported as low, intermediate, or high, and there may be some numbers indicating the predictive value of the test.

Also yet to be determined is how the test would ultimately be applied in clinical practice. “That is something that needs to be worked on and negotiated in the future,” says Phillips, noting that the next step for Menssana is a three-year NIH study designed to generate the kind of

validation data that the FDA will require in order to approve the breath test for large-scale use. “All we have really done thus far is demonstrated that the test works.”

Sputum test offers potential advantages

Researchers at the University of Maryland School of Medicine in Baltimore also are working on a screening test for lung cancer, but their approach works in a completely different way from the breath test. Investigators there are working to perfect an inexpensive and noninvasive gene probe that can be used to detect genetic signals for lung cancer in a person’s sputum. This screening test works by checking to see whether two genes, which are believed to be tumor suppressors, are deleted in cells found in the sputum. In a just-published study funded by the National Cancer Institute researchers report that the test identified 76% of stage I lung cancer patients whose tumors exhibited the same genetic characteristics.²

Although the approach shows promise, the study was very small, involving fewer than 100 participants. And it is still not accurate enough for large-scale screening. “We know the sensitivity of the test is 76%, but even though that sensitivity is higher than current genetic tests, it is not high enough,” says **Feng Jiang, MD, PhD**, assistant professor of pathology at the University of Maryland. “We need at least 90% sensitivity . . . for a diagnostic test.”

Consequently, in addition to working toward validating the early results from the approach investigators are in the process of enhancing the probe so that it can look for up to eight genes in the sputum. However, Jiang notes that the work is challenging, because investigators must isolate altered genes that are only predictive of cancer and not just cellular damage from smoking.

If researchers succeed in producing a test of sufficient sensitivity to detect lung cancer without excessive false-positive results, the approach could potentially offer several advantages over existing methodologies. For example, it is easy for patients to cough a sample into a cup in the doctor’s office. And the test itself is easy enough to perform in a clinic lab, according to Jiang. Further, he notes that the test

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Cancer screening

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could also potentially be used to monitor lung cancer patients for their response to treatment or for early evidence of relapse.

CT screening: A controversial option

Until a newer screening method becomes available, CT is the only technique available that can reliably detect lung cancer at an early stage. However, because of concerns relating to cost and false-positive results, there is no consensus about when or whether annual CT screening makes sense. One organization strongly in favor of the use of annual CT screening in high-risk groups is the International Early Lung Cancer Action Program (I-ELCAP), an international collaboration of 38 medical institutions in seven countries that has been studying the value of annual CT screening since 1993.

Reporting on its research in October 2006, investigators said that lung cancer can be detected at its earliest stage in 85% of patients by using annual low-dose CT screening.³ Further, when followed by prompt surgical removal, the 10-year survival rate for these individuals is 92%. Of the more than 30,000 participants in the study, CT screening found 484 cases of lung cancer, including 412 cases at stage I. The participants included people who were considered at higher risk for the disease because of a history of smoking or exposure to known carcinogens such as asbestos, radon, beryllium, uranium, or secondhand smoke. However, contrary to these results, researchers involved with a longitudinal analysis of 3,246 asymptomatic current or former smokers who underwent annual CT screening for three to four years beginning in 1998 concluded that although CT screening may increase the rate of diagnosis of the disease, it may not meaningfully reduce the risk of advanced lung cancer or death from the disease.⁴

As a result of these findings, investigators recommended against annual CT screening for asymptomatic patients until more conclusive data are available. The principal investigator involved with the I-ELCAP study, **Claudia**

Henschke, PhD, MD, suggests that these data are flawed, because the study did not continue long enough to provide meaningful results. And she has the same problem with a randomized controlled trial looking at the value of annual CT screening that is now under way. “The traditional paradigm is that you do a randomized screening trial where you randomize people into screening or no screening, and in order to do that correctly you really have to do screening for some 10 years—and then it takes another two or three years to write up all of that,” says Henschke, pointing out that the trial now underway only includes three rounds of screening. “That is a long-term process by which you hold back the new methodology for everyone because you have to wait for the results.”

Henschke acknowledges that a randomized controlled trial would provide the answers that people are looking for if it continued for 10 years—and if there were enough participants involved—but she suggests that no country in the world can afford to do that kind of trial.

Despite the controversy that surrounds the issue, participating I-ELCAP centers continue to offer CT screening to patients in high-risk groups—although insurance rarely picks up the tab. Further, Henschke points out that the group is continually refining its protocol to reduce the rate of false-positive results and enhance accuracy. “There are many findings that accumulate over [a person’s] lifetime that may be present on a CT scan, so you need someone who is familiar [with those findings] and has experience and training with the protocol,” she says. ■

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Employer-participants in 10 regions take on new model

Program aims to leverage the skills of community pharmacists to boost diabetes care

There is no question that caring for diabetic patients puts a strain on the time and resources available to most PCPs, and it is also clear that more than half of all diabetics in this country have yet to get their disease under the kind of control that evidence-based guidelines suggest is needed to prevent or delay costly complications. To find solutions to these problems, healthcare organizations are experimenting with new models that could bolster the kind of care that is provided to diabetics while at the same time activating these patients to do a better job of managing their own health. One such approach now being implemented and tested nationwide is the American Pharmacists Association (APhA) Foundation's Diabetes Ten City Challenge (DTCC), an approach that leverages the skills of community pharmacists to work one on one with diabetic patients to help them get better control of their disease. The approach is modeled in part after the much heralded Asheville Project, a pharmacist-driven diabetes program, first implemented in 1996 for the City of Asheville, NC (a self-insured employer), that continues to deliver clinical and financial dividends.

With support from GlaxoSmithKline, more than 30 employer-payers in 10 regions (see the box on p. 72) are participating in the DTCC with the hope that results from the Asheville Project can be duplicated on a larger scale.

Project attempts to repeat success

The idea behind the DTCC is to prove that the Asheville model can be implemented successfully in diverse geographic regions. In fact, many of the people who implemented the Asheville Project are now involved with this effort, according to **William Ellis**, CEO of the APhA Foundation. "We know we have a process that works. We have shown that through multiple projects," he says. "So the next question is, how do you make that more widely available to people and do it on a scale that lets people

know that we believe this can work anywhere."

To gear up for the DTCC, community pharmacists undergo training offered through the APhA to provide them with additional background on diabetes, including basic clinical information, as well as strategies for supporting patients in their own care. Key employer representatives also undergo training in benefit design because some elements of the APhA model, specifically related to the waiving of copays for diabetes-related medicines or supplies, are left up to employers to decide. "Some of the original learnings from the Asheville Project showed that by waiving copays you provide a real economic incentive for people to keep their meetings with the pharmacist to learn about their disease," says Ellis.

Just one year into its involvement with the DTCC, Dalton, GA-based Hamilton Health Care System has seen its pharmacy costs increase by as much as 60%, and medical claims have increased by 20%. However, the increases are in line with what other participating employers have experienced at this stage of the program, explains **Jason Hopkins**, the director of human resources at Hamilton Health Care. "We know if we waive copays and pay for supplies and medicines on the front end that we are going to see utilization and costs increase," he says, but Hopkins points out that he expects to see positive trends with respect to HbA1c results, weight loss, and other clinical indicators when early data from the effort are tabulated in the next few weeks. And he points out that those improvements should eventually have an effect on the financial side. "We have seen results from other communities that have been in this longer than we have, and [overall medical] costs have decreased over time."

Diabetes was an "easy target" for the company, says Hopkins, because the disease accounts for as much as 20%

> *continued on p. 72*

Community pharmacists

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of the firm's overall medical expenditures. However, to implement APhA's program, the company had to invest time and effort in making sure that community physicians and associates at the company's wellness facility understood the concept of the program and what their role in the process would be.

Pharmacists work one on one with patients

The way that the approach typically works is employer-payers will identify all covered individuals who are diabetics and invite them to participate in the program. Those who voluntarily agree to participate will then be assigned to a community pharmacist who has undergone program training. In many cases, the pharmacist is already familiar with the patient, according to **Charles Maret, RPh**, a Dalton, GA, pharmacist who already had established relationships with some of the patients he now works with as part of the DTCC. The pharmacist will begin the process by calling the individual and setting up an appointment to meet with him or her. Hamilton Health Care brings the pharmacists on site to meet with the participants, although other employers may handle this aspect of the model differently.

During the initial encounters, the pharmacist gathers information about patient history, medications, and PCPs. He or she then ascertains how much the patient understands about his or her disease. This process is facilitated by computer-based assessments and prompts that have been woven into the program.

The patient is then asked to sign a consent form so the PCP can keep the pharmacist apprised of all diabetes-related lab results. In addition, following each encounter with the patient, the pharmacist sends the physician reports about what was accomplished during the encounter, as well as any comments or recommendations that he or she may have regarding patient care.

Of the five people he works with as part of the DTCC, Maret says that some patients have more knowledge about their disease than others, but he adds that

Regions participating in the Diabetes Ten City Challenge

Charleston and Spartanburg, SC	Honolulu, HI
Chicago, IL	Los Angeles, CA
Colorado Springs, CO	Milwaukee, WI
Cumberland, MD	Pittsburgh, PA
Dalton, GA	Tampa Bay, FL

they all have the desire to learn more. "All people suffer a little bit of white coat syndrome, and I think we [offer an atmosphere] that is a little bit more relaxed, and we talk with them more one-on-one. This gives them the opportunity to ask questions in kind of a low-key way," he says. "I think that is a big thing—being relaxed and able to talk about it."

Early results show promise

Patients meet with their assigned pharmacist about once every six weeks during the first year of the program, according to Ellis. In addition, patients who have HbA1c readings over 9 are encouraged to attend diabetes education sessions at a diabetes education center.

Preliminary results from the first year of the DTCC will be released later this year, although enrollment in the program at many participating employers has just begun this year.

"You are going to see positive improvements on some of the key indicators like HbA1c levels—I think you will see that for sure," says Ellis, noting that the indicators are tracking in a positive direction.

Although final results from the effort will not be available until late 2008, APhA is already working separately with companies that want to implement the model as part of a voluntary health benefit.

This program, called HealthMapRx, offers DTCC-style programs focused on both diabetes and cardiovascular health, and APhA plans to further enhance its capabilities in the coming years. ■