

# Disease Management NEWS

Independent, timely business intelligence on disease and demand management

## Medicaid project to be expanded

### Iowa CHF telemonitoring demo shows good outcomes

A population- and technology-based remote monitoring platform can greatly reduce the need for costly acute care services by involving patients in their own care, according to results from the Iowa Medicaid Congestive Heart Failure (CHF) Population Disease Management (DM) Demonstration.

The one-year demonstration, which included 266 Iowa Medicaid members and was conducted by Iowa Medicaid Enterprises, the Iowa Chronic Care Consortium (ICCC), and technology company Pharos Innovations, reported a 24% reduction in hospital admissions, compared to a 22% increase in the control group.

In addition, the group of patients enrolled in the demonstration project saw a 22% decrease in total bed days, compared to a 33% increase for the matched cohort.

Overall, the demonstration—funded in large part by a \$150,000 grant from the U.S. Office for the Advancement of Telehealth—saved nearly \$3 million from reduced healthcare service utilization, compared to an increase of \$2 million for the control group.

“This project represents a unique convergence of statewide constituencies who were all interested in improving chronic care,” says **Randall Williams, MD**, CEO and founder of Northfield, IL–based Pharos Innovations. “We were able to implement a very simple technology to solve a much more complex problem.”

The demonstration met Iowa Medicaid’s objectives of improving the medical stability of chronically ill members, increasing the number of members with medical homes, reducing avoidable healthcare

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—William Appelgate, PhD

costs to the Iowa Medicaid program, and providing a program that was well received by participants, according to the evaluation report.

The program has been successful enough to prompt Iowa officials to expand it statewide for CHF patients, and new demonstrations using the same model for Medicaid asthma and chronic obstructive pulmonary disorder (COPD) patients are in the works.

In addition, the ICCC—a voluntary collaboration of public, private, academic, and government organizations working to help the state manage chronic disease—hopes to implement the program among Iowa Medicare fee-for-service patients who have CHF.

The demonstration’s key intervention was daily self-monitoring of weight and symptoms that provide an early warning of worsening heart failure. Self-monitoring was accomplished through an Internet-linked telephone at the patient’s home, along with Pharos Innovations’ Tel-Assurance system, which collected the data and provided them in real time to Iowa Medicaid nurse care coordinators.

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## CHF telemonitoring

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The Tel-Assurance application originally was pioneered by Des Moines, IA-based Mercy Health System.

Once patients agreed to participate in the program, they were educated on how to call a toll-free number each day and report any clinical symptoms they experienced within the previous 24 hours. They chose “yes” or “no” on their touch-tone phones to reply to a prerecorded list of seven questions, and they were required to weigh themselves before the call. The program provided a scale for home use for participants who didn’t have one.

The Iowa Medicaid coordinators monitored the telephone reports and provided a variety of services when they detected variances from normal self-reports, including education to promote self-management support, referral to providers in the case of early warning signs of heart failure exacerbation, collaboration and care coordination with support services such as home health, and routine reporting and feedback to providers as requested.

“This is very transparent for the patient,” says **William Appelgate, PhD**, executive director of the ICCC. “They just have to use the phone and the bathroom scale. It makes it easier that there’s not a whole lot in this that’s terribly new.”

Appelgate notes that per-patient, per-month costs for the project are considerably lower than in other DM programs.

“You have to be able to do this at a cost that is relative to the amount of money you’re saving,” Williams says.

The program is designed to encourage self-management, Appelgate says. “Patients think, ‘If I know I’ve got to call in in the morning, then I’m more likely to be thoughtful tonight,’ ” he says. “This is such an early warning system for predicting the kinds of conditions that lead to heart failure and hospitalization.”

“For the first time, on a very large scale, we have been able to show that engaging patients themselves and asking them to self-report works,” Williams says. “You don’t need to have some gadget or equipment to do that. The patient will do it, and will do it reliably.”

The demonstration included a rigorous evaluation methodology independently certified through the Disease Management Purchasing Consortium, Williams says, which added tremendous credibility to the results.

Results were strong, he says. In addition to the intervention group’s monetary savings and reduction in hospital admissions and total bed days, the demonstration evaluation found a 66% enrollment rate after one year in “the extremely difficult to reach and retain Medicaid population.”

In addition, patient satisfaction appears fairly high with the program: 63% of participants reported being “highly satisfied” or “very satisfied.” Patients were also more confident of their ability to self-manage their condition: 60% reported some improvement, up to “greatly improved.”

Just a little more than half of participants (52%) said they believed the daily phone calls were of great or high value to them. However, 83.7% said they would recommend the program to others.

## Expansions planned in Medicaid, Medicare

The Iowa Medicaid agency has agreed to expand the program to CHF patients across the state, says Williams, adding that he anticipates enrolling approximately 1,200–1,800 new patients in the expanded program.

In addition, the state intends to expand the program to include pilots in asthma and COPD, he says.

### Editorial Staff Board *Disease Management News*

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The ICCC is interested in implementing a similar program in the Medicare fee-for-service population in Iowa, Appelgate says, noting that there are approximately 54,000 Medicare heart failure patients in the state, and the ICCC is working with federal government officials on several levels to determine how to proceed.

It's unclear whether the group would need to obtain congressional authorization or whether permission from

the Centers for Medicare & Medicaid Services to proceed with the project would suffice, Appelgate says, adding that "several vehicles may make this possible." The program as envisioned would be self-funded, he adds. ■

*Contact: Pharos Innovations spokesperson Bonni Kaplan, 847/790-7649; and ICCC executive director William Appelgate, PhD, 515/271-1516.*

**Figure 1**

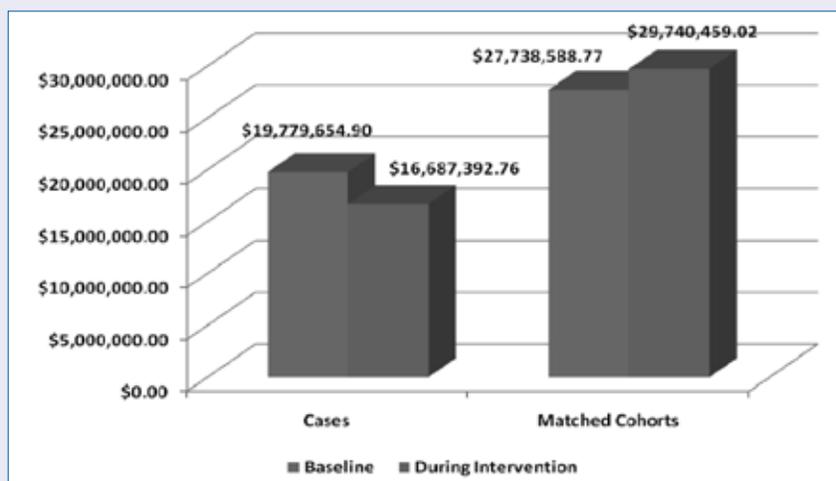
Variables used to perform propensity score matching and the averages at baseline:

Variables	Cases (N=187)	Matched Cohort (N=187)
Gender (Percent males)	35.3%	33.3%
Percent with COPD	18.7%	15.1%
Percent with hypertension	59.4%	59.7%
Percent with diabetes	56.2%	57.0%
Percent with depression	23.5%	21.5%
Mean age	66.3	66.32
Mean inpatient admissions	0.55	0.60
Mean bed days	2.67	3.17
Mean HF related admissions	0.13	0.15
Mean HF bed days	0.59	0.84
Mean doctor visit	15.53	15.85
Mean ER visit	4.02	4.40
Mean ER visit for HF	0.57	0.72
Mean cost of drugs	\$2,752.14	\$3,027.49
Mean doctor office charges	\$2,376.55	\$2,732.86
Mean inpatient charges	\$100,644.86	\$143,371.85
Mean medical utilization charges	\$105,773.55	\$149,132.20

Source: Iowa Chronic Care Consortium, 2008.

**Figure 2**

Total charges for medical care utilization:



Source: Iowa Chronic Care Consortium, 2008.



## News in brief

### HealthMedia launches binge eating campaign, intervention

Ann Arbor, MI-based HealthMedia, Inc., which provides Web-based coaching programs for wellness, disease management, behavioral health, and adherence, has launched a program to combat binge eating.

The company says it's the first program of its kind to address America's top eating disorder and its growing effect on healthcare costs and productivity. Up to 25% of obese individuals suffer from binge eating disorder (BED), according to HealthMedia.

BED sufferers repeatedly consume large amounts of food at one sitting—more than 1,500 calories' worth—to cope with stress or numb themselves from depression or past traumas. A recent study showed that 3.5% of women and 2% of men—more than 6 million Americans—suffer from binge eating, according to HealthMedia.

The program emulates the experience of an around-the-clock health coach, nutritionist, and psychologist working together via the Web to help individuals suffering from the disorder regain control of their eating and emotions, HealthMedia says.

Health plan Highmark, Inc., plans to offer the binge eating program to its members, the company says.

*Contact: HealthMedia spokesperson Iris Shaffer, 708/297-1712.*

### Study: Better diets lead to better energy

A workplace wellness study released this month by Chicago-based employee assistance program provider ComPsych Corp. shows that half of workers with balanced diets had high energy, compared with only 5% of employees with unbalanced diets. In addition, 73% of employees with healthy diets reported having high levels of productivity, compared to 24% of employees with poor dietary habits, the study showed.

Weight matters too, according to the study. Fifty-one percent of employees at their ideal weight had high morale, whereas less than half that amount (25%) of very overweight employees had high morale levels. And 57% of healthy-weight employees reported high levels of productivity, whereas only 27% of very overweight employees reported being highly productive.

*Contact: ComPsych spokesperson Jennifer Hudson, jhudson@compsych.com.*

### McKesson implements new DM participant survey

Broomfield, CO-based McKesson Health Solutions has implemented a new program participant satisfaction survey tool developed by DMAA: The Care Continuum Alliance.

DMAA's survey tool, already in use by approximately one dozen

healthcare stakeholders, represents the only industry standard for measuring disease management (DM) participant satisfaction. The new survey tool was developed by DMAA with guidance from industry experts and JD Power & Associates.

The survey, which includes questions about care coordination and disease self-management knowledge, can be used for any DM condition and also meets accreditation requirements, according to McKesson and DMAA.

*Contact: McKesson spokesperson Jordan Gruener, 303/664-6410.*

### CareNet to use Healthwise content in programs

San Antonio, TX-based care management services provider CareNet says it will use content from Boise, ID-based Healthwise, a nonprofit provider of consumer health information, within its care management environment.

Healthwise Connect will provide CareNet nurses with quick access to plain-language health information, allowing them to better support shared decision-making with patients. The nurses will use material from more than 7,000 evidence-based topics.

The program links call tracking software to the evidence-based health information in the Healthwise Knowledgebase.

*Contact: Healthwise spokesperson Brenda Foster, 208/331-6963. ■*

## Centers for Medicare & Medicaid Services

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<b>State</b>	Iowa
<b>Date</b>	08/05/2009

**Name of Practice:** Medicaid Heart Wise Tel-Assurance program

#### Abstract:

Congestive Heart Failure (CHF) is a progressive chronic condition, with mortality rates averaging 40% within one year of diagnosis. Hospitalization for CHF carries a significant economic burden and is an important determinant of successful clinical and member self-management. The Medicaid Heart Wise Tel-Assurance Program was implemented to provide cost efficient, high quality, self-management support and care coordination for its members with heart failure. The program has met its objectives of improving the medical stability of chronically ill members, increasing the number of members with medical homes, and reducing avoidable health care costs.

#### Challenge:

The Agency for Healthcare Research and Quality indicates that heart failure is the most common diagnosis at hospital discharge for the elderly in the United States and that about 40% of patients are readmitted within 1-year following their first admission for this condition. Hospitalization accounts for approximately 70 percent of the total costs of heart failure management. While heart failure presents a substantial risk of death, particularly for the elderly with comorbidity, survival has increased due to recent improvements in diagnostic techniques, as well as medical and surgical therapies.

In 2003, Iowa hospitalization charges for CHF totaled more than \$79 million, and the Iowa Medicaid program incurred more than \$3 million in hospitalization charges for CHF. These charges do not include emergency department visits, outpatient services, or physician services.

#### Approach:

The Heart Wise Tel-Assurance program was developed under the direction of the Iowa Medicaid Enterprise Medical Services contractor utilizing a device-free remote monitoring platform. The primary purpose of the program, implemented in October 2006, is to improve quality of life for the member and reduce avoidable health care utilization.

Eligible candidates are identified through Medicaid medical claims data. As a primary requirement, all Medicaid members with a primary or secondary diagnosis of CHF are eligible for enrollment. All eligible members receive a letter of invitation, followed by a telephone call.

The key intervention is a daily self-monitoring of weight and symptoms that signal early warning signs of worsening heart failure. A telephone-based system employs Interactive Voice Response (IVR) technology to collect and aggregate data, which are reported online and in real time to contractor nurse care coordinators. When variances are noted by the system, the nurse care coordinator provides the following services: education to promote self-management support, referral to providers for early warning signs of health failure exacerbation, collaboration and care coordination with support services such as home health, and routing reports and feedback to providers.

Program design provides members living in rural areas with access to telephonic support. Nurse care coordinators are available for consultation whenever members have concerns or experience symptoms. On any given day, the nurse coordinators will interact with 15%-20% of the members.

Depression has been recognized as a common and debilitating co-morbid condition for people with heart failure. The IVR automatically screens every new participant for depression using the Patient Health Questionnaire-2 (PHQ-2) survey. Participants found at risk are asked additional questions and triaged to follow-up care and referral.

### **Results:**

The success of the program has been assessed using a satisfaction questionnaire developed using a five-point Likert scale. The questionnaire is sent to all active participants annually, as well as to those who disenroll. Sixty-three percent of members have reported being highly satisfied or very satisfied with the Heart Wise Tele-Assurance program

Medical claims are also extracted to measure inpatient hospitalizations, total bed days, and emergency room visits. In addition, the medical claims data for these visits, medication use, and physician office visits are reported as a dollar value. The participant's functionality is measured on initial admission and, thereafter, annually or at the time of disenrollment.

Inpatient admissions of participating members declined by 24% and total inpatient bed days declined 22% between the baseline period (October 2004-October 2005) and the study period (October 2006-October 2007). The reductions in utilization for participating members resulted in \$3 million in Medicaid savings.

One of the key objectives of the program was to improve access to care. This was measured through the members who indicated that they had a medical home. Before enrolling in the Medicaid Heart Wise Tele-Assurance program, 77.8% of members reported that they used a "regular provider". Of the remaining 22.2% of those who indicated that they did not have a regular provider, 36.8% were helped to establish a regular provider through this program.

Further Information:

For further information regarding the Heart Wise Tele-Assurance program, please feel free to contact:

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