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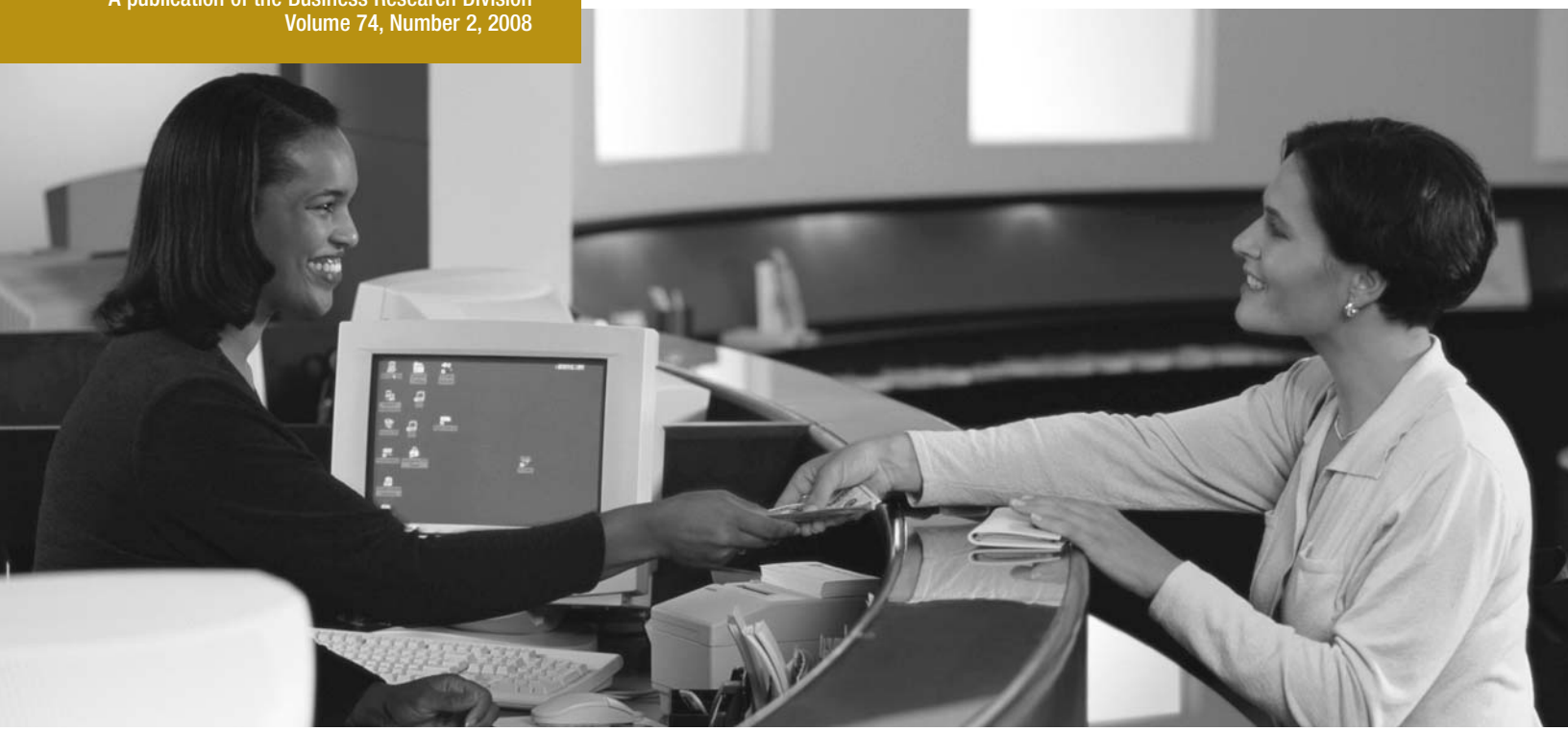

With surging health insurance premiums in Colorado and across the nation that are expected to continue to outpace all other economic indicators, businesses, healthcare professionals, governments, and consumers are striving to discover ways to contain costs.

Bridges to Excellence: Program Expansion in 2008

Donna Marshall

In 2001, the Institute of Medicine (IOM) published *Crossing the Quality Chasm: A New Health System for the 21st Century* that identified a number of problems with the current delivery of healthcare. In one major recommendation, the IOM said care should be redesigned to encourage providers to make positive changes to their internal systems, such as using electronic records and reminder systems, and managing patients to clinical goals (such as blood pressure and cholesterol within normal limits).

Bridges to Excellence (BTE) is a nonprofit organization that was founded in 2003. Its mission is to stimulate significant leaps in the quality of healthcare by recognizing and rewarding healthcare physicians who have implemented comprehensive solutions in the management of patients. The program works in collaboration with employers, health plans, and providers to address improving the quality of care and attaining cost savings. This is achieved by directing proactive chronic care management by physicians to decrease hospitalizations and emergency department visits. The program is voluntary for physician participants.

BTE programs are now in 13 states, with more than 9,000 recognized physicians, and the program has paid physicians over $11.2 million in awards (see Table 1 on page 5). Programs include spine care, diabetes, cardiac/stroke, and health information management. These BTE programs are centered on evidence-based performance standards that were developed with the National Committee for Quality Assurance, the American Diabetes Association, the American Health Association and its American Stroke Association division, and physician experts. To achieve recognition in the diabetes or cardiac/stroke program, physicians must manage their entire population of patients and meet the 75th percentile standard of all practices nationally for blood pressure, lipids, HbA1c, and other clinical goals.

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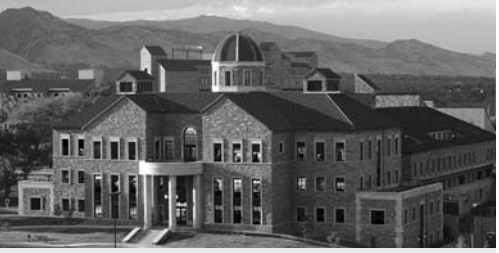

From the Editor

Healthcare costs continue to be a major influence on businesses throughout the state as firms attempt to provide insurance care for their employees while maintaining profitability. The articles in this issue of the *CBR* examine various aspects of this important subject. In the lead article, Donna Marshall, executive director of the Colorado Business Group on Health, outlines the mission and programs of the Bridges to Excellence nonprofit organization. The findings of the Blue Ribbon Commission on the Healthcare Reform report that was presented to the Colorado legislature in January are reviewed on this page. Authors Linda LaGanga and Stephen Lawrence highlight research findings on improving patient care with overbooking on page 3.

Our next issue will present a midyear update of the performance of the Colorado economy and individual sectors. The analysis will compare the current situation in industry sectors to our initial forecast presented last December.

We encourage you to join the Colorado Business Leaders Confidence Index, which gathers opinions and experiences from business leaders across the state via a quarterly online survey. Add your view to those of other business leaders who are participating by visiting www.blci.com.

As always, please contact me at 303-492-1147 with any questions or comments.

—Richard Wobbekind

Blue Ribbon Commission on Health Care Reform Completes Its Work

Donna Marshall

How does healthcare insurance affect you and impact your business? There is widespread concern that premiums are increasingly unaffordable for individuals and a threat to the competitiveness of American business in a global economy. About 17% of Coloradans are without insurance. Of those, about 70% are workers, or in families of workers.

On January 31, 2008, the Blue Ribbon Commission presented its final report to the Colorado State Legislature. The 27 members of the commission were selected from both sides of the aisle, and included representatives from business, physicians, hospitals, insurance brokers, policy experts, public health, and vulnerable populations.

The goal of the commission was to determine the best way to increase coverage and decrease costs. The commission was authorized to solicit proposals from Coloradans, and to hire a firm to model the impact of three to five proposals. The commission evaluated impact of the various proposals in terms of the number of persons who would gain insurance coverage and how much costs would increase or decrease. A total of 31 proposals were submitted, and the commission hired the Lewin Group to perform the complex analysis.

Four proposals were selected for analysis, representing the broad spectrum of options that many states are considering. One proposal was a "single payor" approach that would consolidate financing and administration to decrease costs, provide coverage to nearly all, and allocate resources equitably. This is a model widely adopted (with a number of variations in financing and delivery) by most countries in the world. Another approach involved mandates to individuals and businesses: individuals would be required to have insurance, and businesses would have to "pay or play." This means that businesses would either have to provide coverage to employees, or pay into a fund that could be used to cover costs when persons without coverage accessed the system. The third proposal has only the individual mandate, and the fourth has no mandates.

Only the single payor proposal saved money as a system solution, according to the Lewin analysis, but implementation issues include initial high costs and a number of federal statutory and regulatory barriers. The proposal with no mandates did not significantly increase the coverage of individuals. Using the other proposals as a starting point, the commission constructed a fifth proposal. Cost and coverage were also analyzed, revealing that the proposal would cover 88% of the uninsured.

The results of the model of the commission's fifth proposal produced a series of recommendations that include the individual mandate feature for coverage expansion. Recommendations also include administrative improvements involving the adoption of health information technology and the quality of the delivery system, and more information for consumers and patients to improve healthcare and offset some costs of expansion. The cost of expansion in this proposal is $1.3 billion.

Individual mandates are widely considered the most effective way to reduce the number of persons without coverage whose healthcare costs are passed to those with insurance. Individual mandates would only be reasonable to impose if access to affordable coverage is available and the mandate is enforceable. Components, which are listed below, would need to be in place prior to the mandate.

- Sliding-scale subsidies provided to help low-income workers buy private coverage
- Eligibility for public programs expanded
- Individual insurance market reformed to make it more affordable
- Mandate enforced with income tax penalties
- Pretax premium-only plans offered by employers so employees can purchase their own health coverage

Healthcare is a part of Governor Ritter's Colorado Promise platform. Recently he announced a "Building Blocks for Health Care Reform" plan. "Our health-care system is fundamentally broken, and the flaws touch every person and every business in Colorado," Governor Ritter said. "Costs are skyrocketing. The availability of quality care is limited. Too many people lack insurance, and our public and private health networks are too complicated for most people to navigate."

The plan calls for a $25 million investment in Governor Ritter's fiscal year 2008-09 budget request for building-block strategies in several high-priority areas, including expanded children's health coverage, creation of a new Center for Improving Value in Health Care, greater efficiencies in public and private healthcare, and better transparency to assist consumers.

CONTINUED ON PAGE 3

Improving Patient Care with Clinic Overbooking

Linda R. LaGanga and Stephen R. Lawrence

(Editor's Note: Research reported in this article originally appeared in Decision Sciences, *where it was named the Best Paper of 2007.)*

Everyone uses healthcare services, and most of us have had memorable experiences (often negative) when the scheduling and service delivery process do not meet expectations. From the perspective of a clinic patient, it is hard to understand why we must wait for service, sometimes well past our scheduled appointment time. From the perspective of a clinic provider (physician, psychologist, etc.), it is difficult to understand and cope with the fact that many patients do not appear for long-scheduled appointments (i.e., are "no-shows"). To reconcile these two legitimate perspectives, our research on appointment scheduling and overbooking attempts to identify and develop effective scheduling policies that simultaneously balance the interests of patients, providers, and clinics.

The Appointment No-Show Problem

Our research is motivated by a publicly funded Colorado outpatient community mental health center seeking to maximize its capacity to treat underserved members in the community while managing limitations imposed by sharply reduced state and federal funding. In this clinic, almost 30% of adult patients fail to show up for their scheduled appointments with psychiatrists. Other researchers have found that no-show rates can vary widely from as little as 3% to as much as 80%. For clinics, when patients do not show for appointments, valuable clinic personnel and facilities are underutilized, increasing costs and reducing the number of patients who are seen. For example, one large clinic documented a total of 14,000 appointments that were not kept over a year, resulting in losses of more than $1 million. For patients, high no-show rates eventually force clinics to increase patient prices and prevent patients from seeing a provider on a timely basis. The delays patients experience in obtaining appointments is a common cause of patient dissatisfaction, higher costs, and possible adverse clinical consequences. Clinic no-shows are costly to both patients and clinics.

Healthcare practitioners and researchers have worked on finding the root causes of no-shows and eliminating or reducing them. Reported reasons for no-shows include lack of transportation, scheduling problems, oversleeping or forgetfulness, and lack of child care. The probability of patient no-shows has been shown to depend on patient age and gender, appointment lead times, and Medicaid status. Approaches that have been tried to reduce no-shows include sending patients reminder cards, calling patients, providing information about public transportation, and charging patients for missed appointments.

But despite the best efforts of clinics and administrators, patient no-shows continue to plague many clinics. Clinics will often respond by overbooking appointments—that is, scheduling more appointments than the clinic can serve if all show up. Often this practice is not called "overbooking," but rather referred to in euphemistic terms, such as "we squeeze in a few more patients." Whatever term is used, this overbooking is usually done in an ad hoc and ineffective manner.

For those who have experienced excessive waiting time for clinic appointments, the thought of clinic overbooking creates an immediate and negative response. However, our research indicates that, surprisingly, clinic overbooking can increase patient satisfaction by making more appointments available and expanding access to services, particularly for people who might be turned away indefinitely due to insufficient service capacity.

Appointment Scheduling with Overbooking

Our overbooking research program has been developed in close consultation with clinical program managers and other administrators. Consequently, the resulting appointment scheduling model works to balance three competing interests: the need and desire of clinics to service more patients (that is their mission), the desire of patients to obtain quick appointments and to not wait excessive times when they arrive for their appointments, and the preference of providers to not work excessive overtime serving

CONTINUED ON PAGE 4

BLUE RIBBON COMMISSION, CONTINUED FROM PAGE 2

Adopting any of the Blue Ribbon recommendations and finding funds for expansions is in the hands of the Colorado legislature. Any proposed changes to the current system will be met with challenges. Many citizens are unhappy with the escalating costs, yet they have not had serious problems with the current system. Additionally, they are often concerned that any changes may result in fewer choices or greater bureaucracy. Minority reports to the commission call for fewer government regulations and reject individual mandates. Other views express concerns that mandates continue supporting an insurance solution, when an improved system of care might offer more value. Spending on healthcare from all sources in Colorado is estimated at more than $3.1 billion annually, so stakeholders may see changes as a threat to revenue.

Businesses are caught in the cost spiral, and more small businesses are opting out, leaving greater numbers of persons without access to insurance. Many workers are not able to participate in the insurance system because insurance is not affordable, or not available to temporary, seasonal, or part-time workers. Persons in the individual market may find insurance is not offered to them because of preexisting conditions. Many advocates for change say that "doing nothing is not an option." Healthcare will continue to be a central part of the national political debate.

Information submitted to the Blue Ribbon Commission, including all proceedings, modeling results, and the final recommendations can be found at: www.colorado.gov/208commission/

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IMPROVING PATIENT CARE, CONTINUED FROM PAGE 3

too many scheduled patients. It captures the trade-off between the expected benefits of serving additional patients and the costs of patient wait time and provider overtime. Furthermore, it reveals that the net benefit of overbooking depends on several factors specific to each clinic's operations, including the clinic's no-show rate and the target number of patients it seeks to serve each day.

Our research results suggest important considerations to enhance the effective application of overbooking. First, to alleviate clinic congestion and to more fairly distribute the consequences of overbooking between patient and provider, we recommend either uniformly compressing the time between appointments (the average service time) by a factor equal to the show rate, or staggering appointments in waves that accommodate the extra overbooked appointments and allow the provider to catch up after periods in which more scheduled patients showed up than expected.

Another recommendation is to reduce clinic variability as much as possible. Productivity losses caused by no-shows can always be recovered (on average) by booking extra appointments, but overbooking always increases patient wait time (on average) and provider overtime (on average). In addition, service duration variability causes wait time and overtime to increase even more, although overbooking can still achieve positive net utility even with highly variable service times. Clinic administrators will do well to wring as much variability out of processes as possible, which will result in reduced patient waiting times, increased clinic productivity, and decreased clinic overtime.

Finally, since patient waiting time is inevitable when overbooking is used to reduce the negative impact of no shows, clinics should work to create a waiting experience that is pleasant and as productive as possible for patients. In healthcare, this has often been accomplished by providing ancillary services such as nursing activities while waiting for the doctor or having patients fill out paperwork. Other possibilities might include installing computer kiosks in the waiting room for patients to use physical or mental health self-assessment tools, or to complete self-service computerized satisfaction surveys that provide data to the provider for quality improvement. Combined with effective scheduling and judicious overbooking, these methods can help increase patient access to healthcare services and clinic productivity, while minimizing the distress caused by excessive waits for service and clinic overtime.

Ongoing Research

We continue to examine practical and analytical scheduling approaches to extend healthcare service capacity and balance consumer and provider needs. We are currently investigating healthcare clinics that have walk-in traffic in addition to scheduled appointments. This scenario is common in primary care clinics where many patients make appointments for nonurgent reasons, such as physicals and treatment of chronic problems. Other patients have immediate needs, including minor injuries or feeling sick, and walk in unannounced for service. Our goal is to understand when walk-in traffic should be allowed in clinics with scheduled appointments, and how this might help to mitigate the impact of no-shows.

Another increasingly common practice with healthcare clinics is "open access" scheduling in which some appointments can be scheduled far in advance but others are reserved for more immediate availability to patients who call in for same-day access or an appointment within a day or two. The benefit of advanced access is the likelihood of reducing no-shows, but the risk is that the appointments reserved for same-day access may go unfilled.

Effective clinic scheduling systems provide timely access to consumers and keep providers productive, which in turn contribute to cost-effective service delivery systems. We support the continued inclusion of consumers in system design to maximize appointment yield because when the system is accessible and addresses their needs and concerns, they are more likely to show up and utilize service capacity effectively. Continued interaction with direct service providers is helpful in rapidly identifying and eliminating waste in service delivery processes and enhancing models to capture realistic operating characteristics and provider concerns. Analytical model development is underway to represent realistic cost structures and continuously improve the allocation of overbooked appointments to maximize yield and utility.

Further Information

Further information regarding this article, including papers and detailed references, can be obtained online at http://Leeds.colorado.edu/Overbooking.

SERVICE DURATION VARIABILITY CAUSES WAIT TIME AND OVERTIME TO INCREASE, ALTHOUGH OVERBOOKING CAN STILL ACHIEVE POSITIVE NET UTILITY EVEN WITH HIGHLY VARIABLE SERVICE TIMES.

Primary References

LaGanga, L. and S. Lawrence (2008). *Clinic No-Shows and Overbooking: Reflections and Directions in Appointment Yield Management,* submitted to the LaLonde 2008 Conference on Service Management, LaLonde FR.

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Linda R. LaGanga (lrlaganga@comcast.net) is the Director of Quality Systems and Operational Excellence at the Mental Health Center of Denver. Stephen R. Lawrence (Stephen.Lawrence@Colorado.EDU) is Associate Professor of Operations Management in the Leeds School of Business at the University of Colorado at Boulder.

BRIDGES TO EXCELLENCE, CONTINUED FROM PAGE 1

The Colorado Business Group on Health (CBGH) began the diabetes program in the Colorado Springs area in 2006. Support came from eight employers, and two health plans, with more than 50,000 covered lives. Table 2 provides a partial list of participating employers that are currently in the program. By 2007, the number of participating health plans had grown to five (Table 3). When the program began, no physicians were recognized in the Colorado Springs region, and only four physicians were recognized in the entire state. By the end of the third quarter of 2007, over 60 physicians had attained Diabetes Recognition, 13 of whom are in Colorado Springs (Table 4). Nearly $14,000 in awards was paid in 2007.

Beginning in 2008, the program will expand to include BTE's cardiac/stroke program, as well as diabetes. Additionally, the program will expand to the Front Range, initially covering the employees of eight Colorado employers, with more expected to join the project midyear.

The BTE program has support from the El Paso County Medical Society and the Mountain View Medical Group. Other organizations, including the Colorado Clinical Guidelines Collaborative, the Colorado Foundation for Medical Care, and the Colorado Quitline, provide valuable resources to physician practices that are striving for the recognition status.

One result of the program to date has been improved communication between employers and physicians. It provides a common theme for physician leaders to meet many of the local employers with the goal of building trust and finding common values on the health of the population. It builds upon the strength of many physician leaders who believe that these early, good-faith programs will help translate the ideals of the IOM into practice.

For more information, contact the Colorado Business Group on Health (cbghealth@aol.com or 303-922-0939). The national program may be reviewed at www.bridgestoexcellence.org.

Donna Marshall is the Executive Director of the Colorado Business Group on Health and has served in that capacity since 1996. She can be contacted at cbghealth@aol.com.

Bridges to Excellence Mission

Bridges to Excellence is a not-for-profit organization developed by employers, physicians, health care services, researchers, and other industry experts with a mission to create significant leaps in the quality of care by recognizing and rewarding health care providers who demonstrate that they have implemented comprehensive solutions in the management of patients and deliver safe, timely, effective, efficient, equitable and patient-centered care.

TABLE 1

BTE Executive Summary[a]

Recognized Physicians	9,642
Recognized Practices	1,838
BTE Rewards Paid	$11.2 million

States with Operational BTE Programs

Arkansas	Massachusetts	New York
Colorado	Maryland	North Carolina
Washington, D.C.	Minnesota	Ohio
Georgia	New Jersey	Washington
Kentucky		

[a] Through December 2007.

TABLE 2

Partial List of Employers Participating in the Diabetes Recognition Program for Colorado Springs

Centura Health[a]	Intel[b]
City of Colorado Springs	Memorial Health System
Colorado College[b]	Penrose-St. Francis Hospital
Colorado Springs School District #11	Public Employees' Retirement Association[a]
Colorado Springs Utilities	
El Paso County[b]	University of Colorado[a]

[a]New as of January 1, 2008.
[b]From January 1, 2006, to December 31, 2007.

TABLE 3

Partial List of Health Plans Participating in Diabetes Recognition Program

Anthem (2007)
CIGNA (2007)
Great West (2006, 2007)
Rocky Mountain Health Plans (2006, 2007)
United (2007)

TABLE 4

Physicians Who Have Attained Certification in BTE's Diabetes Recognition Program in Colorado Springs (2007)

Dr. Tracey Ayers	Dr. Theodore Lawson
Dr. Thomas Bartlett	Dr. Joyce Michael
Dr. Doug Clark	Dr. Andrew Mitchell
Dr. Doug Hammerstrom	Dr. Patrick Shahan
Dr. Sarah Lynn Huffman	Dr. Teri Weber
Dr. Warren Jaeger	Dr. Michael Yoesel
Dr. Anita Lane	

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Richard L. Wobbekind, editor; Cindy DiPersio, assistant editor; Gary Horvath, technical advisor; Lynn Reed, design.

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2007 TOP TWENTY HEALTHIEST STATES

1	Vermont	11	Rhode Island
2	Minnesota	12	Washington
3	Hawaii	12	Wisconsin
4	New Hampshire	14	Iowa
5	Connecticut	15	Idaho
6	Utah	**16**	**Colorado**
7	Maine	16	South Dakota
8	North Dakota	18	Montana
9	Massachusetts	19	Wyoming
10	Nebraska	20	Oregon

Source: United Health Foundation. Rankings based on combination of individual measures of personal behaviors, community environment, public and health policies and practices of the government, and clinical care received. See http://www.unitedhealthfoundation.org/shr.html