Journal VBHM Value-Based Health Management

BRiDGE to Care

Tim Buko, Executive Director of LCBGH, with Carol Szutowicz, former LCBGH Bridge Project Coordinator.

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Small Employers See Big Results in Diabetes Management

Value-based health management programs such as "The Asheville Project" and "The Diabetes Ten City Challenge" have shown the total value of reducing barriers to evidence-based interventions for managing chronic diseases such as asthma and diabetes.[1,2] With similar goals of controlling costs related to chronic disease and improving clinical outcomes, the Lancaster County Business Group on Health (LCBGH) partnered with Lancaster Pharmacists for Improved Health Outcomes (LPiHO) and the American Pharmacists Association (APhA) to launch the BRiDGE Project.

The BRiDGE Project: Phase 1

The BRiDGE Project involved 7 employers and 73 employees addressing diabetes management.[3] In phase 1 of the project, the focus was on creating collaborations among patients with diabetes, trained community pharmacists, and healthcare providers. The primary goal was reducing cost barriers to treatment adherence and supporting patients in taking more responsibility for managing their own care. Participating patients were provided both financial incentives, such as reduced or waived copays for diabetes medications and supplies, and personalized one-on-one health coaching by trained community pharmacists.[4]

These pharmacists were trained to help patients adhere to their physician's treatment plans, for which they were compensated. They explained medication regimens, discussed strategies for weight management, and reinforced the importance of compliance with diabetes self-care skills, such as daily blood glucose monitoring. In addition, the health coaches reminded patients about preventive care (e.g., eye and foot exams, and flu and pneumonia immunizations). Through this one-on-one coaching model, patients learned to manage and monitor their conditions, adhere to recommended treatment guidelines, and reduce associated risks.[5]

Outcomes

The results of the BRiDGE Project Phase 1 were compiled from data obtained from patient pharmacy visits recorded from April 7, 2006, through September 20, 2007.[5]

Clinical measures: The 42 patients who met the inclusion criteria (i.e., documented visits and at least one hemoglobin A1c recorded) during this period demonstrated clinical improvements in hemoglobin A1c (a decrease from an average 8.1 to 7.4) as well as downward trends in blood pressure and low-density lipoproteins (LDL).[3,5]

Patient compliance with preventive measures: Within the study period, nearly all patients received foot exams (98%), had current eye exams (93%), and had flu shots (88%).[3] In addition, with the support of their pharmacist coaches, 88 percent of patients had established lifestyle goals in the areas of weight management, appropriate exercise, and nutrition.[5]

BRiDGE to Care

Continued from page 1

Economic: In the first year of the BRiDGE Project, a significant cost-savings was realized for participating employers, an average of $5,812 per patient, per year (see chart below).[3] Expanding on the cost/benefit relationship, Colleen Kayden, Consultant Pharmacist for the BRiDGE Project, notes, "When we look at the initial results, we see that the pharmacy costs actually went up, physician visits went up—but overall costs went down in a substantial way. So it sort of turns on its head the idea that if you cut pharmacy costs, you'll save money. The idea of adherence and compliance—those are the things that will drive better outcomes."[6]

Factors for Success

To accomplish the goals and successes of the BRiDGE Project, LCBGH recommends including and integrating the following key elements[3]:

- **payers** who embrace the concept that providing incentives and reducing cost barriers will improve clinical outcomes and lower total costs, through improved compliance and adherence by employees with chronic conditions
- **physicians and hospitals** that support collaborations between patients, caregivers, pharmacists, and employers
- **pharmacists** who are motivated and trained to invest time in assisting patients
- **processes and methods** that are established for documentation and outcomes tracking

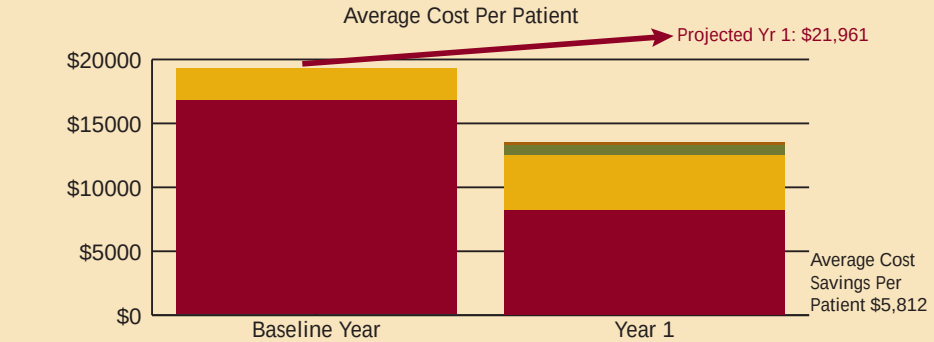
The experience of the LCBGH with the BRiDGE Project demonstrates that by adopting a best-practice model (The Asheville Project) and sharing goals, resources, and support, small employer groups can improve the delivery of healthcare and increase total value to all stakeholders.

In a conversation with Tim Buko, Executive Director of LCBGH, he summarizes: "The real story is how a number of small employers pulled together to make a real difference in people's lives—improving their health and keeping them engaged and at work. The changes are remarkable and would have been difficult for one small employer to achieve alone."[7]

For more information, visit www.lcbgh.org and www.centervbhm.com

Average Total Healthcare Costs for Participants in the BRiDGE Project

Project Baseline and Year 1 Actual and Projected Costs*



	Baseline Year	Year 1
HealthMapRx Fees		$186
Network Services	$0	$841
Medication	$2,604	$4,343
Medical	$16,714	$8,136
Total	$19,318	$13,506

For 39 patients that met inclusion criteria; assumes 13% inflation rate.

Fera T. Overview and First Year Results for HealthMapRx™ Diabetes Program: The BRiDGE Project. Presentation, APhA Foundation, 10/19/2007.

Welcome to *JVBHM*

GlaxoSmithKline is committed to working with employers who are searching for ways to manage escalating health benefit costs while maintaining the health and productivity of their primary asset—their employees.

At GSK, we believe our corporate responsibility is to promote three key principles: prevention, intervention, and innovation in medical research. As a leading research-based pharmaceutical company, we are dedicated to helping individuals and organizations stay healthy, engaged, and manage their health effectively.

The Center for Value-Based Health Management and the *Journal for Value-Based Health Management* are our newest tools for employers, health plan administrators, and benefit consultants that will foster a focused conversation about how value-based health management fits within the broader healthcare discussion.

This resource and its companion Web site (www.centervbhm.com) are dedicated to providing timely, credible, and practical information, tools, and support to help organizations derive greater value from their health benefit offerings. We encourage your feedback.

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Prevention

Aspirin Therapy Targets CVD Risk

The national cost burden of cardiovascular disease (CVD) is estimated at $448 billion in 2008.[1] In light of this fact, employers are looking for value-based preventive strategies for reducing risks for CVD in their employee populations. While aspirin therapy has been shown to be a high-value intervention among at-risk populations, compliance with this strategy has been significantly low.

The U.S. Preventive Services Task Force (USPSTF) found good evidence that aspirin decreases the incidence of coronary heart disease (CHD) in adults who are at increased risk for heart disease. The Task Force suggests that additional groups may want to consider aspirin therapy, including younger people with risk factors for CHD (e.g., hypertension, diabetes, smoking), postmenopausal women, and men older than 40).[2] As a cost-effective priority, discussing aspirin therapy with targeted high-risk individuals ranks first among the 25 evidence-based clinical preventive services, along with childhood immunizations and tobacco use screenings and interventions.[3] Studies have established that aspirin therapy for middle-aged men at high risk for CVD (10-year risk of 7.5 percent or greater) is more effective and less costly than no therapy at all, providing 15 additional quality-adjusted days of life and costing $215 less.[4]

Although aspirin therapy is a proven value-based prevention strategy, fewer than half of all at-risk Americans comply.

Although currently fewer than 50 percent of all American adults take aspirin daily to prevent CHD, it is estimated that 45,000 additional lives would be saved each year by increasing compliance to 90 percent.[5] In 2005 dollars, the annual per person medical cost of service was $25, while the annual per person medical cost savings was $95.[6] As such, aspirin therapy has been shown to be a highly effective value-based intervention that not only addresses employees' health risks for CVD, but also provides a return of investment to employers.

Does Your Organization:

- Identify employees with risks for CVD through such tools as health risk appraisals and/or health screenings?
- Educate employees and dependents, through company communications, about the value of aspirin therapy as a secondary prevention strategy for CVD?
- Encourage employees to discuss their relative risks for CVD and the benefits of aspirin therapy with their personal physicians?

Benchmarking

Drive Participation, Increase Effectiveness

Broad range program participation is a key success factor for value-based health management and provides a relatively easy-to-measure benchmark for evaluating program effectiveness. Yet, many decision-makers view participation rates as a "soft measure," compared to so-called "hard metrics," such as cost trends and return-on-investment (ROI).

Research conducted by the University of Michigan's Health Management Research Center (HMRC) has shown an inverse relationship between increased participation in health management activities and health and productivity measures such as medical costs and disability, respectively.[1] The HMRC recommends the following two benchmarks:

- Ninety to 100 percent of the eligible population should participate in at least one wellness activity within a given 3-year rolling period; and,
- Eighty percent of the eligible population should engage in a minimum of two wellness activities within a 3- to 4-year period.[1]

This relationship is echoed in a study published by Seth Serxner, PhD, MPH, and colleagues, which showed a "dose response" between participation rates and medical claims costs.[2] In other words, health risk assessment (HRA) participants cost an average of $212 less than eligible non-participants. When compared to non-participants, an individual's repeated participation afforded even greater cost savings to the organization, from $83 following the initial HRA to $543 by the third. And, when targeted follow-up activities were combined with the HRA, cost-savings were even greater, up to $625.[2]

"While many vendors present significant ROIs and data on cost savings, these results lack credibility without participation information."[3]

–Seth Serxner, PhD, MPH,
Mercer Human Resource Consulting

The bottom line? Organizations need to develop and implement strategies for increasing participation in order to drive compliance and adherence rates within health management offerings.

Does Your Organization:

- Develop and maintain creative marketing campaigns to increase and sustain participation rates over the long term?
- Incorporate participation rates as a dashboard benchmark?

First Person

a conversation with

A. Mark Fendrick, MD

A. Mark Fendrick, MD, is a professor at the University of Michigan in its Departments of Internal Medicine and Health Management and Policy. Dr. Fendrick co-directs the University of Michigan Center for Value-Based Insurance Design and is the co-editor in chief of the American Journal of Managed Care.

JVBHM: Mark, you have been an influential leader and voice in the area of value-based health benefit design. What motivated you to study this area?

MF: In the early 1980s, I was influenced by my mentor, economist Bernard S. Bloom, PhD, who was among the few who simultaneously examined the issues of both quality and cost in healthcare decision-making. In the 1990s, efforts to contain rising healthcare costs became focused on increasing out-of-pocket costs for patients, such as requiring increased copays for doctors' office visits and prescription drugs. I saw that the effectiveness of these "one-size-fits-all" cost-sharing approaches was short-lived and produced financial obstacles for patients that became barriers to quality care. Despite those who believed that individuals would be able to spend their own money wisely on healthcare, it was our strong belief that as patients' costs rose, they would forego both essential and nonessential services. Our research agenda was so intuitive that my mother, Barbara Fendrick, said she couldn't believe we were conducting a scientific study to prove that if people had to pay more for something they would buy less of it.

As a result of this intense focus on healthcare costs—and less attention on clinical outcomes—a systematic push to use the lowest cost drug, physician group, and hospital has resulted. In my view, there is no other sector of the consumer economy in which the majority of people buy the lowest priced product; why should healthcare services be any different? Clearly, it is now time to move the discussion away from cost alone and bring health back into the healthcare cost debate. The disproportionate attention on cost reduction should be replaced by value, defined as producing the most health per dollar spent.

JVBHM: An important cornerstone of value-based health management is value-based health benefit design. What are its key principles?

MF: The one-size-fits-all cost-sharing model suggests that every drug, test, device, or service is of equal value to all patients. In reality, medical services differ in their value. Therefore, value-based benefits must be clinically nuanced. That is, copays and other cost sharing should be tailored based on the clinical value to each individual patient: the higher the clinical value to the patient, the lower the costs. Interventions with little or no proven benefit require higher cost sharing. For example: people should not pay the same for a drug that may save their life from illness due to high blood pressure, diabetes, or heart attack, as one that treats their toenail fungus or baldness. Moreover, the benefits and risks of services differ depending on how one receives the specific treatment. Let's take the example of cholesterol-lowering drugs. Treating a diabetic patient with dramatically elevated cholesterol with statins (because of increased risk of heart attack) is of higher value to that patient (and the payer) than treating a healthy 30-year-old male who has mildly elevated cholesterol. The reason is that the risk of a life-threatening and costly adverse event is several times higher in the person with diabetes than in someone without a co-morbid condition, who is likely many years away from an expensive adverse event. With a value-based benefit, the high-risk patient with diabetes pays a lower copay (or no copay) for his or her statin medication because, in this clinical situation, the statin medication is an extremely high-value intervention. With cost barriers removed, patients are more likely to adhere to the treatment plan, allowing for:

- reduced or delayed incidence of serious complications;
- increased value to the employer as a healthy employee via fewer absences, higher productivity, etc.; and,
- enhanced ROI for the employer.

JVBHM: If you were to advise employers on evaluating their current health benefit designs around the value concept, where should they start?

MF: Obviously, change like this can begin only by developing executive support.

Then, it's critical to know your data so that you understand your population and its disease and risk profiles. We recommend starting with those conditions for which the employer has implemented disease management programs. Next focus on quality improvement initiatives designed to improve patient self-management of chronic diseases by enhancing compliance with specific high-value interventions. The fact that individuals in disease management programs pay high copays for high-valued services exemplifies the current misalignment of incentives in our healthcare system. Why would an employer spend significant resources creating and implementing a disease management program, paying clinicians to contact their patients and remind them to adhere to specific recommended services, only to see increasingly higher copays for those very same services? At a minimum, we recommend reduced or no copays for those services recommended by the disease management program—aligning the incentives for the patient to access the care that they need. A second reason we encourage employers to look carefully at disease management programs is that the mechanism is already set up for implementation of value-based insurance design. Through data-mining, it is easy to identify the specific patient population to target, and typically, those patients have waived any applicable HIPAA (Health Information Portability and Accountability Act) or other legal issues that could be a barrier to value-based insurance design implementation.

JVBHM: What initiatives should an employer consider implementing that are aligned with value-based principles?

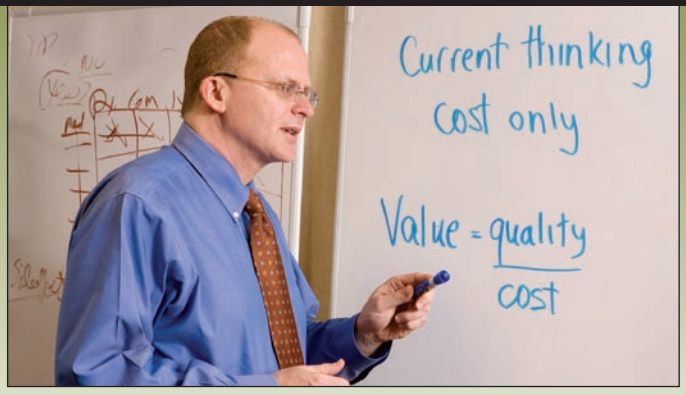
MF: It's always simpler to target the "low-lying fruit," that is, undisputed high-value services such as childhood immunizations, medications for asthma, depression, diabetes, hypertension, emphysema, osteoporosis, congestive heart failure, and heart disease. For these specific services, there is a body of peer-reviewed, empirical research in the literature that demonstrates their value to the specific patient populations with those diagnoses.

JVBHM: You recently co-authored a study in *Health Affairs* that evaluated the influence of copays on utilization of preventive medicines for treating chronic disease. What was the uniqueness of this study?

MF: Our team at the Center for Value-Based Insurance Design (www.vbidcenter.org) introduced the benefit-based copay concept nearly a decade ago. Since then, there have been several case studies of copay reductions published in the literature. However, none had a control group that could establish that the clinical and financial effects were attributable to changes in benefit design. This recent Health Affairs study involved two employers during the same time period, with the same health plan, and the same disease management program. We looked at the use of five classes of drugs including medications for cardiac disease, hypertension, diabetes, asthma, and hyperlipidemia. The employer group that provided some preventive medications for free, or drastically lowered certain copays, showed significant increases in the use of these medications among their employees. The other group that did not lower their employees' copays showed no similar increase in use of these important preventive medications. The study conclusively showed that copay relief improved quality of care.[1]

JVBHM: What are the challenges?

MF: Regardless of the audience—payers, providers, and patients—the fundamental concept that value-based insurance design can improve health outcomes at any level of health expenditure has been nearly universally accepted, but slowly adopted. The biggest challenge for any innovation in benefit design is the inertia of our healthcare system—and moving toward implementation of the concept. Potential barriers, including getting a realistic actuarial estimate of the real cost to employers to implement a value-based initiative and finding a vendor that will provide such a program, recently have been overcome as new products have entered the marketplace. Finally, some may view value-based insurance design as being in conflict with high deductible "consumer driven" health plans, which assume that patients will spend their money wisely when it comes to their healthcare. Since our own research and many other studies do not support this premise, we strongly advocate for a "soft paternalism" in these plans and recommend low or no copays for high-valued services that will not be purchased by many individuals, if left to their own choice.



"The disproportionate attention on cost reduction should be replaced by value, defined as producing the most health per dollar spent."

–A. Mark Fendrick, MD

Medical Consumerism

Medical Self-Care: The First Step to Decision Support

With the growth of High-Deductible Health Plans (HDHPs) and saving vehicles such as Health Savings Accounts (HSAs), employees are more aware of their health costs and are likely to take a more active role in informed purchasing decisions. Yet, both decision-makers and employees question the most effective means of improving health literacy and informed medical decision-making.

For more than 30 years, medical self-care education has been proven to be an effective, value-based approach to decision support according to Allen Douma, MD, a former Medical Director of the Hartford Insurance Company and CEO of Empower LLC. "Medical self-care education is a relatively inexpensive entry point for employers to support their employees and dependents in developing skills in healthcare decision-making while helping them save out-of-pocket expenses by avoiding inappropriate medical visits," says Douma.[1]

Studies

- On average, medical self-care programs have demonstrated a conservative ROI of $3 for every $1 spent within 12 months of implementation.[2,3]
- When combined with a nurse advice line, a medical self-care program within a large insurance trust demonstrated an ROI of $4.75 for every $1 spent.[4]

Success Factors

According to Douma, factors that contribute to a successful employer medical self-care program include:

- **A self-care resource book,** which can be promoted, reinforced, and even distributed with online applications.
- **Distribution to households.** In most cases, this leverages the influential role that women have in guiding family health decisions and practices.
- **An orientation workshop or video** that introduces the resource and provides common decision scenarios (e.g., chest pain, colds and flu, back pain).
- **Periodic reinforcement** of the self-care resource through employee communications (e.g., health newsletters and online applications) that are timed with seasonal and/or national health themes (e.g., colds and flu, allergies, heart health).

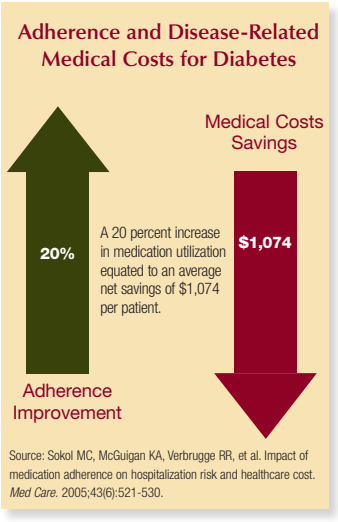
Does Your Organization:

- Provide medical self-care education programs to all eligible households?
- Reinforce medical self-care skills through periodic communications?

Disease Management

Raise Adherence Rates to Lower Costs

On average, half of the people who are taking medications to manage chronic health conditions do not adhere to their prescribed treatment.[1] This is especially troublesome in the area of disease management, in which pharmaceutical interventions are the foundation for managing costly chronic conditions, such as asthma, diabetes, hypertension, and depression. As such, poor adherence management leads to poorer clinical outcomes and increases in total health-related costs.[2,3]



In a study by Michael Sokol, MD, and associates, the authors demonstrated the impact of adherence behavior on hospitalization costs for a number of disease classes. In a population of 137,277 patients under age 65, low adherence to medication treatment was associated with higher rates of hospitalization among patients with diabetes, hypercholesterolemia, hypertension, and congestive heart failure. Conversely, high adherence was associated with lower disease-related medical costs among patients with diabetes and hypercholesterolemia.[4]

In the case of patients with diabetes, it was shown that for every 20 percent increase in medication adherence there was an average net savings of $1,074 in disease-related medical costs.[4] Conversely, a 20 percent decrease in adherence led to a similar increase in related medical costs.

The bottom line? It is in the best interest of employers and their respective health plans to measure and drive appropriate medication adherence in order to realize the greatest clinical value and avoid adverse medical costs.

Does your organization:

- Measure the rates of medication adherence for major chronic disease classes?
- Know the percentage of patients per disease class (e.g., asthma, congestive heart failure, diabetes, depression) who have an 80 to 100 percent rate of adherence for prescribed medications?

Research

Impact of Decreasing Copayments on Medication Adherence Within a Disease Management Environment.

Chernew ME, Shah MR, Wegh A, et al. Impact of decreasing copayments on medication adherence within a disease management environment. *Health Affairs.* 2008;27(1):103-112.[1]

Background: Recent research has shown that cost-shifting strategies, such as higher copays or coinsurance as part of pharmacy benefit plans, may have a negative impact on clinical outcomes and increase overall medical costs by acting as a barrier to medication adherence in the treatment of common chronic health conditions.[2,3]

Study Objective: To assess the impact of lower copays on medication adherence for five chronic medication classes.

Approach: The study compared medication adherence rates between two employers. One employer reduced copays for five chronic medication classes, while the other acted as a control. Both employers used the same disease management program, which controlled for its potential effect on adherence behavior.

Results: Compared to the control group, medication adherence in the group with reduced copays increased in four of five medication classes—ACE inhibitors/ARBs, beta blockers, diabetes drugs, and statins. Inhaled corticosteroid adherence improved, but was not statistically significant.

Implications for Employers: This study supports earlier studies demonstrating that cost barriers through higher copays influence medication adherence rates. Organizations are encouraged to review their current pharmacy benefit design for specific chronic disease states, assess potential cost barriers to appropriate medication adherence, and consider value-based strategies that reduce these barriers.

Survey Results

Results of the 2004 National Worksite Health Promotion Survey.

Linnan L, Bowling M, Childress J, et al. Results of the 2004 national worksite health promotion survey. *American Journal of Public Health.* 2008;98(8):1503–1509.[1]

Discussion: Since most adults in the US spend a considerable portion of their days at work, the worksite has become a critical public health setting. A national telephone survey of employers was conducted to assess current levels of involvement in worksite health promotion. Stratified by company size and industry type, the study revealed that in worksites having more than 750 employees, 24 percent offered comprehensive health promotion programs. However, when all worksites were aggregated, only 6.9 percent of surveyed organzations met the criteria for comprehensiveness against a national benchmark goal of 75 percent established by *Healthy People 2010.* A comprehensive worksite health promotion program is defined as having the following five components:

- Health education
- Supportive social and physical environment
- Integration
- Linkage to related programs
- Worksite screening

Implications for Employers: Organizations are encouraged to benchmark their current health promotion programs against the five program components and address potential weaknesses and gaps in their health management strategy.

Incorporation of Key Elements of a Comprehensive Program, by Worksite Size: National Worksite Health Promotion Survey, 2004[1]

	Total (n = 730), %	50–99 Employees (n = 179), %	100–249 Employees (n = 229), %	250–749 Employees (n = 211), %	≥750 Employees (n = 111), %
Health education	26.2	17.8	26.2	38.1	70.3
Supportive social and physical environment	29.9	24.0	32.5	33.5	53.7
Integration	28.6	20.6	33.3	30.9	61.4
Linkage to related programs	41.3	29.6	43.7	59.3	80.5
Worksite screening	23.5	15.8	25.3	30.5	62.4
All 5 elements	6.9	4.6	6.0	11.3	24.1

Linnan L, Bowling M, Childress J, et al. Results of the 2004 national worksite health promotion survey. *American Journal of Public Health.* 2008;98(8):1503–1509.

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Medical Self-Care: the First Step to Decision Support

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Value-Based Health Management: The planning, design, implementation, administration, and evaluation of health management practices that are grounded in evidence-based guidelines across the healthcare continuum. Within the VBHM model, initiatives focus primarily on innovative practices that demonstrate the greatest total value through value-based benefit design, primary prevention, risk intervention, and chronic disease management.

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