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INFORMATION EXCHANGE FOR
VALUE-BASED DESIGN

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Value-Based Designs

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Cyndy Nayer, MA, President and Chief Executive Officer of the Center for Health Value Innovation

Madam Chair Byrnes, and Members of the House Committee on Public Employee Healthcare Reform, thank you for the opportunity to provide these comments today.

The Center for Health Value Innovation is barely 3 years old, a 501c3 non-profit, and our membership represents over 40 million covered lives. We began with a mission of sharing the evidence and driving the innovation in value-based design. As the information exchange for value-based design (VBD), we scan the market, identify what works and what is not sustainable, and share both the evidence and the passion for improved health and economic outcomes.

In the early 1970's and for the next 15 years, the connection between improved medical care to improved health status was not very well understood.

The Rand Corporation first studied the original concept of copays based upon financial and clinical need married to incentive-based design in 1991 (Brook, R.H., "Health, Health Insurance and the Uninsured," JAMA 265 (20):2998-3002, 1991). In this 11-year population-based study, which began in the early 1970s, Brook concluded that higher levels of cost-sharing led to decreased use of the healthcare system. Elimination of cost-sharing led to an increased use in medical care but, at the time, the researchers were unable to demonstrate that this led to improved outcomes (Nayer, Mahoney, Berger, Leveraging Health.2009; page 22).

It was not until the connections between improved medical care and improved health and productivity—the economics of improved health—were documented by Michigan's own Dee Edington, PhD at the University of Michigan, together with another good friend and colleague of the Center, Dr. Wayne Burton of BankOne and later JPMorgan Chase, that we could begin to develop and apply the concepts of value-based design: health and productivity management are intrinsically tied for economic improvement and sustainability.

These early pioneers, and now, innovators and experts, are sharing their path to predictable, sustainable health cost trend that supports business strategy and community health improvement.



The early work was based on chronic care management, and the stories that became legend were built in Asheville, NC and at Pitney Bowes (designed by my partner and co-founder in the Center and the retired Global Health Strategist for Pitney, Dr. Jack Mahoney). The legend grew that free drugs for diabetes, asthma and hypertension would reduce health costs, drive productivity, and be sustainable.

If that were the case, then every Medicaid recipient in the United States would be compliant with his or her treatment, adherent over time, and we would not have the burgeoning diabetes epidemic that we have. And, while we consider the facts versus the legend, let's also be sure that we recognize that the real epidemic in this country is hypertension, uncontrolled in 59% of the insured population and in 79% of the uninsured (Commonwealth Fund, 2008). In the face of diabetes and hypertension, a co-morbid condition of diabetes, it is the hypertension that drives the emergency room visits, the early cardiovascular complications, the renal disease and kidney failure, the coronary heart failure, the blindness and the amputations. Much of this is preventable through adherence to the appropriate care, which is much more than free drugs as prescribed. Diabetes is a cardiovascular condition that with blood sugar elevation, as one of our members once told me.

As a co-founder of the Center and the experienced market surveyor, I began 4 years ago to build the quantification of the market of VBD. How many were in it, how many were thinking about it, and what levers—incentives and insurance design—did they use? Recently Towers Perrin published a study that said that 49% of the US employers had a form of VBD for drug therapies. We know, however, that a VBD is much more than drug co-pay reduction, and that it can deliver much more in prevention, wellness, early risk reduction, and productivity.

There are 3 categories of VBD: Prevention and wellness (we call this individual competency), Chronic Care Management, and Care Delivery. There are over 100 levers that companies use to encourage or discourage use of medical care based upon evidence, business strategy, and population health indicators. We have rolled the 100 levers into 15 macro levers. Further, we have tracked the maturation of the market and shift in philosophy, sophistication and outcomes.

Here is what we know:

1. No company uses only one lever. Levers can be reduced co-pays, deposits in health savings accounts, personal days off, or even a ticket to a ballgame; they can also be increased premiums for inappropriate use, high tiering of services that are used inappropriately (such as emergency room visits for a sore throat), and more.
2. No company succeeds at VBD without a substantive prevention and wellness focus. They may begin with a health risk appraisal and biometric screen, reported to them in the aggregate by segment, zip code, etc, but they quickly expand the offerings to include annual physicals, age and gender appropriate screens and immunizations, behavioral health access, and even urgent care/convenient care services. This use



of preventive and predictable interventions moves the company from reactive (high costs are out of control) to pro-active (linking the business of the company with the improved health status of its workers, their families, and the community).

3. Companies who succeed have 1 or both of the following quality-improvement platforms: either they use a risk management focus to identify early and future risk (thereby managing waste and controlling for potential new costs) and/or they use a process improvement platform (such as Six Sigma, Lean, ISO 9000) and they wrap the medical community into the platform, driving improved engagement, adherence and efficiencies for better outcomes.
4. Once companies begin to drive the quality improvements, they begin to influence their communities for better health. After all, when you get a hospital system to improve its processes or a small physician office to begin to track care on an electronic medical record (EMR), then these efficiencies permeate the system and other plan sponsors—small and large employers, the health hospital system as an employer, the governments—reap the benefits of the innovation from an employer-sponsored change.

I was invited to participate in a Calhoun County collaborative meeting in late 2007. A multi-stakeholder group, including hospital, physicians, employers, health plans, and more, were building a new care program called a patient centered collaborative. It was almost 1 year old, and someone in Michigan thought they should hear what I had been uncovering. Since then, we have educated, convened, approved, raised funds, and implemented a VBD in Kellogg, Kellogg Foundation, and the City of Battle Creek, and we hope that the Battle Creek Health System will launch their VBD in January 2010. Again, a quality improvement process, focused on prevention and chronic care, showing promising results, needed the collaborative engagement of the businesses of the community for a complete health value chain.

Like most, the group started with a focus on managing diabetes. Integrated Health Partners is visionary physician group, Blue Cross Blue Shield of Michigan is the willing partner in Battle Creek, but I've spent time with another partner, Priority Health, who has launched (or is in the process of launching) several VBD in other venues in Michigan. We received funding and in-kind services from several organizations, including Denso, Merck, Pfizer, Novo Nordisk, Novartis, sanofi-aventis, Takeda, and Johnson and Johnson, and from the Robert Wood Johnson Foundation. I want to clarify: at no time was there any promotion of pharmaceutical drugs—these folks are working side-by-side with us to understand the adherence barriers, the key statistics and health indicators, and the communication barriers to improved diabetes, pre-diabetes, and hypertension/cholesterol control in this community.

What do we know? In Michigan, in the 2 years we've been involved, the rate of diabetes has increased from 8.5% diagnosed to 9%, with another 3rd undiagnosed (Michigan Diabetes Burden...accessed 9.09). Even more frightening:

- 27.3% have pre-diabetes, but 35.5% of adults over age 35 have pre-diabetes



- 28% of diagnosed population have had stroke, angina, heart attack or CVD
- **66.7% of MI adults with DM have been diagnosed with hypertension (HTN)**
- 2006: 42% of newly diagnosed ESRD (end stage renal disease) had a primary diagnosis of Diabetes
- 2007: 20.1% of vision impairment had diagnosis of diabetes

We estimate that 1/3 of the Battle Creek population is not appropriately diagnosed with diabetes. Further, the total cost of care for the diabetic population in our study (just under 4000 people) is almost \$60,000, 000, just under 25% of the total cost of care across the 64,000 lives in the database. Finally, to drive home a point, the total cost of care for diabetics with diagnosed hypertension in this database is over \$39 million, fully 65% of the total health care expenditures for the total diagnosed diabetes population.

Couple this with the Kaiser Foundation's study that showed that, in these times of economic distress, over 44% of people nationally have relied on home remedies instead of seeing a doctor, 35% skipped a dental or medical checkup, 33% put off needed medical care, 1 in 5 skipped doses of needed medication or cut doses to half...the list is long, but the sum is this: 56% of the surveyed Americans were cutting back on needed care. A burgeoning health care crisis in access and affordability, and the economic crisis of personal and public budget shortfalls, stress-anxiety, and job loss is straining the US; Michigan is in the forefront of this storm. What we are learning in Battle Creek should help us to understand how to withstand this storm.

What I stress in working with patient centered collaboratives is FOCUS on what others have done to move the needle: identify the most pressing risk, remove access and affordability barriers, create behavior-changing incentives, and manage the costs, the worsening of the health, and productivity impact to lower trends. We now know, through research published in the Journal of Occupational and Environmental Medicine, that every dollar spent on medication adherence for example, delivers \$2.30 in improved productivity (JOEM, July 2009).

Here are some other examples we've documented where VBD pays off in real-world applications:

1. Gulfstream in Savannah GA linked improved quality at the health system-physician levels with co-pay reductions for using the improved system, onsite services for flu shots, improved engagement in diabetes management, and more: they have seen a 21% reduction in average medical cost per diabetic, a 43.3% increase in average drug cost per diabetic, a 4-year health cost trend that was only 4.3% (less than half the national trend), and an annual health care cost avoidance of \$5-6 million—which they reinvest in the health and safety of their employees. But they were also instrumental in changing the expectations of shared risks and rewards across the community.



2. Quest Diagnostics nationally has launched a colon cancer prevention design. By improving the rates of fecal occult screening, they identified several high-risk folks who had colonoscopies for pre-cancer and cancerous lesions. This, coupled with the improved engagement for prevention and wellness company-wide, has resulted in a \$1million productivity improvement for the company.
3. The State of Maine, in the State Health Benefits Plan for their employees, was averaging an annual cost of \$10,000 per diabetic, 33-55% more than the national average for appropriate care. They reduced copays for drugs and supplies, but the employees had to be engaged in the diabetes education, and they drove their costs down by \$1300 per year over the control group—in just 12 months. They are now expanding to asthma and congestive heart failure. By the way, they did NOT give the drugs or treatment at no cost, but instead worked within their budget to reduce the tiering for care to make it more affordable, and they held the quality indicators high for the hospitals and physicians to be part of the program.
4. In Massachusetts, they began to push the use of mail-order pharmacies to manage costs and improve adherence.
5. The City of Springfield, Oregon instituted a diabetes-focused VBD 4 years ago, with an intervention group and a control group. In the first year, those that received counseling from the pharmacists reduced their absenteeism by 21%—a tremendous savings to a small municipality of 450 employees.
6. In a soon-to-be-published report of another city's results, the concentrated engagement and management of diabetes and hypertension resulted in an improved adherence rate of 1%. That may not sound like a lot, until you realize that it translates to a savings of \$1000 per person per year in the study—a hearty reduction in cost trend.

What does this mean? In one county in which we are working, we showed that reducing the productivity impact of unscheduled absences due to disease —by only 1%—would result in 212 more workdays per year. That translated to a $\frac{3}{4}$ nurse practitioner who could deliver immunizations to the underinsured children in the county—a measurable, cost-neutral intervention that meant real-world results. In an era of public employee lay-offs due to revenue shortfalls, there was a welcome excitement at the potential of VBD to optimize resources for key public health services.

We have documented levers in personal health (such as reduced copays or pre-deductible costs for prevention, immunization, well-woman/ well-man exams, and mandatory recording in the Personal Health Record) that result in a reduction of cost-trend of up to 50% over 5 years in employers as small as 100 employees and as large as 350,000 employees. We have documented levers in chronic care management that have delivered the same 50% cost trend reduction. And we have documented levers that guided patients to appropriate services, from urgent care to primary care, and,



sometimes, to medical travel across state lines, resulting in up to 35% trend reduction—and this is on its way to achieving the same 50% reduction in some instances.

What this means for Michigan: with people out of work or worried about losing their jobs, there is less use of appropriate care and more use of symptomatic relief for pain or discomfort. This will result in even poorer health, with communities overwhelmed with care in emergency rooms that could have been handled with earlier primary care. Unreimbursed medical expenses will continue to grow. Until more jobs are created, tax dollars will continue to decline. Then more physicians will leave, hospitals will start closing departments, and employers will leave communities.

Dire? Yes. I am witnessing this every day in southwest Florida, where we moved a little over a year ago. For every 1% increase in the unemployed nationally, the ranks of uninsured—some of whom are still working and have access to care—grow by 1.1 million. There is a 4:1 reduction in services, and the spiral continues.

Michigan has been the full-throttle-forward leader in manufacturing and productivity for so many years. I know these are unprecedented times for your state. I can't build jobs, but I can suggest a reversal of the trend by creating the very incentives, tied to appropriate behaviors and engagement, that can improve health and productivity so that business can stay in place and new businesses can be seeded.

I have been honored to be a part of community health improvements in Michigan, from Battle Creek to Lansing to Grand Rapids, from Kalamazoo to Ann Arbor to Detroit. It takes the intuition to see a different course, the bravery to chart it, and the boldness to execute it. This is very spirit of the America that I know, and I know several of the most innovative folks in Michigan have set their hearts ---folks such as the leaders of the Calhoun County Pathways to Excellence-- and their communities on fire with the vision.

It is doable. It is not easy. But it does work. Quality drives the efficiency. Innovation fills the need within a community. Hope is built, and that drives development.

Health is intrinsically linked to our economic survival, in Michigan and in America. Engagement is necessary, rebuilding a better system one step at a time. But let's be sure: the focus on health care will get us more health care. What we need, what we cannot wait for, is more health. Our vision is one of better health for America, and Michigan is part of our journey. One family, one organization, and one community at a time: Keep our focus on the health and economic outcomes, the rest will follow.

Thank you again for the opportunity to speak before you today. I would be happy to try and answer any questions you might have at this time. You may also reach me at 314 422 4385 or cyndyn@vbhealth.org