Individual Engagement and Accountability In Health Care

For Consideration by the Aspen Institute

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Individual Engagement and Accountability

I. Executive Summary

Traditional, reactive models of treating illness and disease are collapsing under the weight of economic and demographic disruptions. In order to effectively respond, health care systems must evolve and reorient rapidly to focus on achievement and preservation of optimal health – not simply on the provision of treatment to those who are sick. To achieve this, a crucial ingredient that has been undervalued in the modern health care systems – particularly in the U.S. – is the engagement of individuals in their own health, well-being and health care purchasing decisions. When individuals are incentivized to engage in value-based health care buying and to make healthier lifestyle and health management choices – and are empowered by effective support programs, information and communication – they can and will make better decisions, which in turn will have a dramatic impact on the health care cost curve and overall quality of life.

However, in the U.S. today, individuals are highly disconnected from, and insensitive to, the underlying cost of health care and the role that individual choice plays as a key driver of those costs. Lifestyle choices account for approximately 87% of individual health care costs;[48] yet Americans are unhealthier than ever. Medical costs are rising; yet Americans are not willing to make value-conscious decisions regarding their health care. In no other consumption-based market or industry is there such a disconnect between individual choice and financial obligation. In a supermarket or a restaurant, for example, it would be unheard of for a consumer to purchase food or other products without regard to price or impact on personal budget. Yet, in the U.S. health care system, individuals consume indiscriminately and generally are not incentivized or expected to behave as they would in any other purchasing environment. This dynamic is contributing to higher costs for everyone in the health care system – consumers, employers and federal and state governments.

Consumer-focused incentives have proven to be highly effective in engaging individuals in their own health and encouraging greater personal accountability for their health care decisions. Large and innovative U.S. employers have been early adopters and continuous innovators of these types of incentives – which have shown to improve health outcomes, decrease health care costs and increase productivity. We believe that these engagement tools can and should be more broadly encouraged, used and adopted in the U.S. to achieve improvements in health, as well as increased sustainability and affordability of care.

However, challenges have been made to the concept of consumer-focused incentives by labeling them with the societal taboos of "discriminatory," "regressive" or "cost-shifting mechanisms." To the contrary, engagement of individuals through well-designed consumer-focused incentives harnesses the power of personal choice and leads to a lower incidence of disease and disability, lower medical spending, and improved performance – all of which have the potential to transform the U.S. health care system from a fiscal burden to a driver of economic growth and societal good.

This paper examines effective ways in which these types of incentives are being used to increase consumer engagement in their health and their health care buying decisions.

II. Definition of problem

The U.S. health care system is in crisis. While there is widespread acknowledgement of the importance of wellness and preventive care in maintaining health, the U.S. health care system remains largely focused on addressing sick care. That is, it waits until individuals become ill before it kicks into action, instead of focusing on keeping individuals healthy. For example, despite evidence of the effectiveness of preventive services and the development of published national guidelines, actual rates of delivery of preventive health care services remain low – with high-volume physicians performing fewer preventive services.[8] Several studies have investigated the reason for this dynamic and have cited a number of contributing factors such as: lack of time during the office visit; inadequate insurance reimbursement; patient refusal to discuss or comply with recommendations; and lack of physician expertise in counseling techniques.[8]

In the context of this framework, for the past 30 years, health care costs in the U.S. have grown faster than the economy. In 2010, the U.S. spent $2.6 trillion or $8,402 per person on health care.[23] This represents 17.9% of the gross domestic product.[23] Without significant changes, by 2021, health care expenditures could represent $1 of every $5 produced by the U.S. economy.[1] This spending is substantially more than any other country in the world,[23] but the outcomes in the U.S. are not necessarily better. U.S. life expectancy is well below that of Japan, Canada, Israel and most Western European countries, which is largely driven by an infant mortality rate that is higher than the rate in dozens of countries including Japan.[1] Additionally, a World Health Organization report, published in 2000 (which has been discontinued due to complexity), ranked the U.S. 37th out of 191 countries for overall quality of their health care systems.[45]

The Role of Chronic Disease. At the heart of the U.S. health care crisis is the individual consumer whose lifestyle choices are taking a tremendous toll on health care costs and putting extreme pressure on the overall health care system.

Chronic diseases account for more than 75% of U.S. health spending – with rising obesity levels contributing to a significant portion due to its relationship to the prevalence and severity of many chronic diseases.[2,3] In publicly funded health programs, spending on chronic disease represents an even greater proportion of total spending: more than 99% in Medicare and 83% in Medicaid.[2]

Chronic diseases are also the leading cause of death and disability in the U.S. accounting for 7 out of every 10 deaths each year.[3] One hundred and thirty three million Americans – 45% of the population – have at least one chronic disease.[2] By 2025, chronic diseases will affect an estimated 164 million Americans – nearly half (49%) of the population.[2]

The treatment and care of chronic diseases in the U.S. is not only taking a tremendous toll on health care spending, it also has a detrimental economic impact that results from loss of productivity. About one-fourth of people with chronic conditions have one or more daily activity limitations, "often understood as a hindrance or inability to perform major activities in one's life."[3] According to a study conducted by the World Economic Forum, productivity losses associated with chronic disease – such as disability, unplanned absences, reduced workplace effectiveness, increased accidents and negative impacts on work quality or customer service – are projected to be as much as 400% more than the cost of treating chronic disease.[24] In the United States, the top seven chronic ailments are responsible for an estimated annual shortfall of $1 trillion in productivity.[25]

Many of the chronic diseases that are burdening the U.S. economy could be prevented, delayed, or alleviated, through simple lifestyle changes.[2,24,25] The U.S. Centers for Disease Control and Prevention (CDC) estimates that eliminating three risk factors – poor diet, inactivity, and smoking – would prevent: 80% of heart disease and stroke; 80% of type 2 diabetes; and 40% of cancer.[2]

Americans as Passive Health Care Consumers. Despite the evidence to the contrary, Americans have a very optimistic view of their health relative to the rest of the world. The U.S. led nations globally in perceptions of good health, with 61% of individuals rating their health as excellent or very good.[33] Perhaps as a result of this misconception regarding the status of their health, Americans with chronic diseases receive only 56% of recommended preventive health care services[3] and participation in wellness programs offered by employers, health plans, hospitals, and other types of organizations is low – with 25% reporting having participated.[33]

This lack of awareness of the individual consumer regarding their health and the vital role that they can play in improving it is a major driver of health care costs in the U.S.

It has been estimated that 20% or more of expenditures dedicated to health care employ either over-, under-, or mis-utilization of medical treatments and technologies, relative to the evidence of their effectiveness.[23] Many Americans believe that a major contributor to this waste is the fact that individuals are not taking enough responsibility for their own health.[33] Indeed, facts affirm that personal responsibility is a key driver of sub-optimal utilization.

While a 2013 study indicates that Americans are exercising more,[31] a 2013 *Gallup* poll showed that American eating habits have deteriorated in 2013.[30] As a result, the most recent national data on obesity prevalence shows that more than one-third of adults and almost 17% of children and adolescents were obese in 2009–2010.[27] That number remained steady in 2012.[29] Without immediate intervention, this number could be as high as 44% by 2030.[28] In addition, 19% of Americans (or 43.8 million people) currently smoke, with 69% indicating that they would like to completely quit.[32]

In terms of their engagement with the health care system, Americans are generally reluctant to weigh in on their own health care decisions. A 2010 study conducted by the American Institutes for Research[9] found that:

- Patients often rely heavily on their doctors for information, interpretation, and guidance on treatment options and said that they were reluctant or too timid to raise concerns about their care.
- Participants found it hard to believe that providers could deliver truly substandard care and therefore were more inclined to trust their own and their physicians' judgments of quality, instead of relying on medical guidelines. Only 34% of participants ever recalled having a physician discuss what scientific research had shown about the best way to manage their care.

- Participants had crucial misconceptions about the underlying concepts of evidence-based health care and generally viewed medical guidelines as rigid rules that interfere with providers' ability to draw upon their medical training and experience to tailor their care to the characteristics of individual patients.
- Participants also believed that any new treatment is improved treatment and that the most expensive treatments were the most effective.

A separate study[7] found that the majority of participants were unwilling to consider costs when deciding between nearly comparable options and generally resisted the less expensive, marginally inferior but still adequate option. The study identified four main reasons for this: (1) preference for the best care option, regardless of the costs involved and regardless of whether there was a less expensive suitable option available; (2) inexperience with making trade-offs between health and money; (3) lack of interest in costs borne by society because of misunderstanding of the way insurance works, lack of perceived personal responsibility, and disdain for insurance companies and the government; and (4) non-cooperative behavior characteristic of a "commons dilemma", in which people act in their own self-interest although they recognize that by doing so they may be depleting limited resources.[7]

III. Analysis of cause

There are a number of factors that may have led to the lack of engagement of individuals in their health and health care buying decisions – including being poorly informed about the consequences of their behavior on their own health or society;[11] holding a belief that the benefits of changing or improving their behavior do not outweigh the costs;[10] lacking the confidence or information to make informed choices;[5,10] or a general dissatisfaction with the performance of the overall health care system.[33] There are two particular factors upon which this paper will focus: (1) the disconnect between individuals and medical costs; and (2) the paternalistic view of physicians held by many consumers. Each of these is discussed more fully below.

Disconnect between individuals and medical costs. A majority of Americans do not experience the full costs of health care insurance or health care treatment. Of the roughly 314 million Americans, approximately half of the population (156 million Americans according to the Congressional Budget Office[35]) was covered by employer-sponsored insurance in 2013 and greater than one-third of the population (over 100 million Americans) received government-sponsored coverage by way of Medicaid and Medicare. This insurance coverage has been valuable to ensure that many Americans receive access to care. However, where highly subsidized and/or extremely rich health care insurance coverage insulates and disconnects individuals from the costs of medical care provided, individuals do not spend that money as carefully as they would if it were their own – even though they ultimately control which health care providers are used and which treatments will be undertaken. The well-known phenomenon of "moral hazard" – the tendency of an individual to behave differently in regard to a particular event depending on the presence of insurance – manifests in the context of health insurance by the tendency of individuals to increase utilization of medical services paid for by insurance compared to those services not covered.[6] As insurance coverage increases, demand for services covered by such insurance likewise increases. Increasing the share of costs paid by consumers has been shown to reverse this trend. Studies have shown that increasing out-of-pocket costs to consumers by 10% reduces total spending per patient by 2%, and adding a high ($1,000 or more) deductible reduced total spending by 4 to 15%.[36]

Two seminal studies are often cited to validate this concept. First is the only large randomized trial of different levels of co-payments conducted in the U.S. from 1974 onwards in which RAND became the sole insurer for 5,809 people, each randomly assigned to different insurance plans with co-insurance ranging from zero to 95**%.** With health differences and other variables controlled for, the plan with 95% cost sharing (amounting to a $1,000 family deductible due to the out-of-pocket maximum) showed spending that was just 66% of the amount used by those with no coinsurance. The study found these differentials continued after five years.[42] The second study, began in 1972, with California as one of the first states to increase Medicaid copayment from $0 to $1 per visit.[43] This yielded a volume reduction in number of visits by 8%**.** Many other states followed this example and implemented copayment requirements in the 1990s. In 2001, Utah was experiencing high utilization, but after implementing $2 copayments, utilization plummeted by 70%.[43]

Today, the phenomenon of moral hazard is exacerbated for two reasons. First, Americans are shouldering less of the rising health care costs out of their own pockets. Between 1970 and 2010, the share of personal health care costs paid directly out-of-pocket by consumers fell from 40% to 14%.[23] This does not mean that consumers are paying less out-of-pocket for their care – in fact they are paying more. What it does mean is that the amounts paid toward rising health care costs are being borne disproportionately by private insurance and government programs than by families. Although premiums for consumers have risen over that same time period, lower cost sharing at the point of service likely enables consumers to use more health care, leading to expenditure growth.[23]

Against this backdrop is sweeping U.S. health care reform that further divorced individuals and their decisions from the underlying cost of medical treatment and care. Mandated levels of coverage (which are highly government subsidized for a large portion of the population) are leading to over-insurance for many Americans; an individual's personal health risk can no longer be underwritten; healthy individuals subsidize the cost of the unhealthy with no additional change in behavior encouraged for, or required of, the unhealthy in exchange for this benefit; and strict limits on individual out-of-pocket expenses are being enforced. While the reforms succeeded in enabling access to coverage for a certain portion of the population for whom the market was not working, the long-term effect of injecting potentially millions more Americans into a system designed to encourage overconsumption and individual passivity cannot be understated – both from a societal and fiscal health perspective.

All of these dynamics are contributing to a disconnect and insensitivity of individual consumers to the underlying cost of health care and the role that individual choice plays as a key driver of those costs.[41]

The paternalistic view of physicians held by many consumers. Another reason consumers may be disengaged from their own health care decisions is the historical patient-physician relationship in which physicians and other health care providers are viewed in our society as holders of highly specialized knowledge and practitioners of an art and science that is all but incomprehensible to others. These factors have conditioned many patients not to ask questions or take an active role in making decisions about their health[9] – at a time when value-based decision-making within the health care system is critical. This dynamic may help explain why 36% of the U.S. population was shown to have basic or below basic health literacy levels – defined as the "capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."[26] These low literacy rates are believed to cost the U.S. economy in the range of $106 billion to $238 billion annually.[4]

As a result, many patients may feel intimidated by their providers, the health care system generally, and their own lack of knowledge and feel that it is their physician's role – not theirs – to determine treatment and care.[9] Unfortunately, the U.S. health care system may not be well equipped to solely bear this level of responsibility when one considers the fact that: as many as 400,000 people die each year as a result of preventable medical errors; 33% of hospital patients suffer some form of preventable harm during their hospital stay; 58% of clinicians felt unsafe about speaking up about a problem they observed or were unable to get others to listen; critical care patients each experience nearly 2 medical errors per day; and 92% of U.S. physicians admitted to making some medical decisions based on avoiding lawsuits, as opposed to the best interest of their patients.[34]

All of these factors, individually and taken together, underscore how critical individual accountability and engagement – with respect to both health and health care buying decisions – are to the mission of controlling health care costs. Even modest advancements in this area will yield significant savings and contribute to the much needed evolution of the modern health care system.

IV. Solutions

Individual engagement is a critical part of the solution to the looming U.S. health care crisis.[44] A recent study demonstrated that when patients are activated – a component of engagement defined as "understanding one's own role in the care process and having the knowledge, skills, and confidence to take on that role" – they are more prone (regardless of status, age, sex and income) to participate in their health care decisions, get appropriate and recommended treatments (including preventive care), engage in healthy behavior and seek out and use health information.[5] They are also less likely to be hospitalized or use the emergency room for treatment.[5] As a result, the study found that individuals with the lowest activation levels had predicted average costs that were 8 – 21% higher than individuals with the highest activation levels.[5] The authors of the survey noted that "these empirical findings add to the growing body of literature suggesting that patients play an important role in determining their own health outcomes."[5]

In an effort to increase Americans' levels of health engagement (and thereby individual activation), consumer-focused incentives have emerged as an effective tool to drive behavior designed to: maintain good health for the healthy; identify the healthy at risk and reduce their risk profile; and encourage healthy behaviors and cost-effective treatment for those with chronic and acute conditions. Employers have been particularly motivated to explore the effectiveness of these tools given the economic detriment that high claims costs and poor individual engagement present to their business competitiveness. In total, the cost of obesity to U.S. companies – a major risk factor in the development of chronic diseases – is estimated at $13 billion annually.[2] This includes the "extra" cost of health insurance ($8 billion), sick leave ($2.4 billion), life insurance ($1.8 billion), and disability insurance ($1 billion).[2] Additionally, according to the World Economic Forum, U.S. companies that

target just three major modifiable employee behaviors that contribute to chronic disease, can save an average of $700 per employee each year in health care costs and productivity improvements.[25]

Accordingly, employer uptake of consumer-focused incentives is high with nearly seven out of 10 employers (68%) deploying some form of incentive to inspire behavior change.[19]

Incentives to Improve Health

Consumer-focused incentives have arisen as an important tool to engage individuals in the own health and well-being because they have the ability to change the relative costs and benefits of behavior, potentially leading individuals to make better, more healthy choices.[10, 11] Such incentives can be structured as a monetary transfer (either in-cash or in-kind), time off, awards, recognition, raffles or lotteries, reduced health plan premiums and co-pays, and contributions to flexible spending or health savings accounts – all of which are provided directly to an individual with the intention to induce a behavioral change or cause a certain outcome.

While a number of studies review the impact that consumer-focused incentives have on individuals' health behaviors, we believe that it is important to view incentives not in isolation but as a part of a comprehensive health improvement or wellness strategy. It is well documented that incentive models alone may not achieve the desired engagement that results in long-term behavior change.[10,11] Participants need to be convinced that a "healthy lifestyle is not just about earning a financial reward – but rather a path to feeling better, experiencing a better quality of life, having more energy, and generally improving their well-being."[14] Our contention is that when consumer-focused incentives are used as part of a comprehensive wellness program designed to support behavioral changes (incentive-driven wellness programs) then the results are not only sustainable but measurable.

The World Health Organization defines health promotion as "the process of enabling people to increase control over, and to improve their health."[46] In order to achieve this, corporate wellness programs may include a variety of activities to identify and reduce health risks and to promote healthy lifestyles, such as health fairs, health education, medical screenings, health coaching, weight management and smoking cessation programs, health management programs, wellness newsletters, on-site fitness programs and/or facilities and educational programs. Some companies that have instituted wellness programs have also implemented organizational policies designed to facilitate employee health including allowing flex time for exercise, providing on-site kitchen and eating areas, offering healthy food options in vending machines and holding "walk and talk" meetings, among many other options. In short, employers are harnessing their power as a "community" and leveraging their culture and infrastructure to create an environment focused on health and health improvement.

When consumer-focused incentives are used as part of a comprehensive and well-designed wellness strategy that incorporate these types of elements, it is well-documented that participation rates increase, health outcomes are improved and a positive return on investment is achieved.

Despite the prevalence of wellness programs at the worksite,[19,37] employee uptake remains limited.[13,19,33] Consumer-focused incentives go a long way to ensure participation in wellness programs and are highly effective in increasing individual participation in desired activity. A 2010 Kaiser Foundation[38] study found a 14% increase in wellness program participation when an incentive is offered. Well run programs see enrollment as high as 80-90% of the population.[16] Additionally, there is general consensus that financial incentives can elicit compliance with, and increase participation in, relatively simple transactional actions that promote good health, such as completing a health risk assessment, getting a biometric screening or engaging in preventive activities like getting a flu shot.[10,11,13] For example, a 2013 RAND study[13] found that employers who use incentives for screening activities report significantly higher participation rates than those who do not (63% versus 29% for HRA completion and 57% versus 38% for clinical screenings).

Once individuals are enrolled in wellness programs, the impact on health outcomes is significant. A 2013 RAND study[13] reported that "consistent with prior research, we find that lifestyle management interventions as part of workplace wellness programs can reduce risk factors, such as smoking, and increase healthy behaviors, such as exercise. We find that these effects are sustainable over time and clinically meaningful. This result is of critical importance, as it confirms that workplace wellness programs can help contain the current epidemic of lifestyle-related diseases, the main driver of premature morbidity and mortality as well as health care cost in the United States."

Another report[15] summarizes published research in this area over a number of years reporting that: (1) well-designed, evidence-based programs built on behavioral theory can achieve long-term health and productivity improvements in employee populations; (2) workplace wellness programs, in spite of their variability in terms of comprehensiveness, intensity,

and duration, achieved long-term behavior change and risk reduction among workers; and (3) there is sufficient and strong evidence supporting the view that workplace programs exerted a substantial positive effect on poor behaviors and biometric values.

There is also evidence that tying an incentive – not only to program participation – but to the desired outcome can also be effective. For example:

- A 2007 pilot study demonstrated that tying small financial rewards to weight loss resulted in higher weight loss at three months, and that larger incentives (fourteen dollars versus seven dollars per 1% of weight lost) were associated with even higher weight loss results; [44]
- A 2008 study found that individuals given an incentive lost more weight over sixteen weeks than individuals in a control group; [44]
- A separate study found that program participants who received a $150 cash incentive for logging minutes exercised more than the control group and had significant improvements in exercise and body weight;[45] and
- A 2009 study of an employer-sponsored smoking cessation program – found that a financial incentive of up to $750 for quitting smoking for one year induced near-tripling of long-term smoking cessation rates.[46]

The various literature, however, cautions that care must be taken when designing incentives to achieve long-term sustainable outcomes (e.g., setting the size or reward schedule appropriately to bring about the desired change) to ensure that once the financial reward ceases, individuals do not relapse into former behavioral patterns.[10, 11]

In terms of return on investment, a research study conducted by economists at Harvard University[21] – shows that large employers adopting wellness programs see substantial positive returns, even within the first few years after adoption. Medical costs fall about $3.27 for every dollar spent on wellness programs, and absentee day costs fall by about $2.73 for every dollar spent. Not only do these benefits accrue to employers, there are many other benefits as well, including improved health, reduced turnover, and lower costs for public programs such as disability insurance and Medicare. Another report[15] notes that "several literature reviews that weigh the evidence from experimental and quasi-experimental study designs suggest that workplace programs using tailored communications and individualized counseling for high-risk individuals are likely to produce a positive ROI; that is, for every dollar invested over a three-year period, the ROI ranges from about $1.40 to $4.70." A 2013 RAND report[13] found that participation in a wellness program over five years is associated with a trend toward lower health care costs and decreasing health care use, but deemed the estimated average annual difference ($157) to be "not statistically significant." The report noted, however, that its findings were lower than most other reported results because its "approach estimated the isolated effect of lifestyle management interventions, whereas many published studies captured the effect of an employer's overall approach to health and wellness…"[13] The report went on to conclude that "there is reason to believe that a reduction in direct medical costs would materialize if employees continued to participate in a wellness program." [13]

To summarize – wellness programs and consumer-focused incentives alone each appear to generate positive results, but can have somewhat limited impacts. The power of these engagement tools is clear, however, when integrated into a comprehensive, sustained program that embraces the power of an aligned community, in this case employers.

In addition to the numerous studies available that confirm the ability of incentive-based wellness programs to reduce medical costs, reduce absenteeism, achieve higher productivity, and increase morale among employees, the anecdotal evidence for well-run programs is equally powerful. The majority of employers who use incentives as part of their wellness program indicate their belief that they had an impact: 53% indicated they improved health behaviors; 51% indicated they increased engagement; 48% believe there is a positive impact in employee morale, satisfaction and/or attitudes; 44% saw changes in health risks; and 35% believe there are associated savings.[19] In addition:

- A 2010 study[16] evaluated the effect of Johnson & Johnson's comprehensive incentive-based health and wellness program over a number of years. Johnson & Johnson experienced average annual growth in total medical spending that was 3.7 percentage points lower than similar large companies. Company employees benefited from meaningful reductions in rates of obesity, high blood pressure, high cholesterol, tobacco use, physical inactivity, and poor nutrition. Average annual per employee savings were $565 in 2009 dollars, producing a return on investment equal to a range of $1.88—$3.92 saved for every dollar spent on the program.
- Safeway's comprehensive incentive-based wellness plan, called Healthy Measures, reported smoking rates at roughly 70% of the national average and constant health-care costs over a four year period. When surveyed, 78% of its employees rated their plan good, very good or excellent. In addition, 76% asked for more financial incentives to reward healthy behaviors.[17]

- Citibank's comprehensive health management program demonstrated that for every dollar invested in programming activities, $4.56 - 4.73 is saved in reduced health care costs.[47]
- Union Pacific Railroad's medical self-care program achieved cost savings of $2.78 for every dollar invested by reducing inappropriate emergency room and outpatient visits. [47]

While there is substantial evidence that, by utilizing incentive-driven wellness programs, employers can target modifiable health risk factors and achieve improvements that lead to reductions in health care costs and improvements in productivity, some are against them on the basis that they can serve as potential tools for discrimination. The argument goes that financial incentive programs are designed to differentiate among individuals based on success in undertaking incentivized activities or achieving incentivized outcomes and provide a higher financial benefit to successful individuals. This differentiation becomes a concern when some individuals face significantly greater difficulty than others in obtaining program rewards – such as Individuals with lower levels of education or health literacy, health issues or lower-income individuals.

A recent controversial study[18,14] found little evidence that wellness programs can easily save costs through health improvement without being discriminatory. The study suggest that savings to employers may come from cost shifting, with the most vulnerable employees — those from lower socioeconomic strata with the most health risks — probably bearing greater costs that in effect subsidize their healthier colleagues.

There are a number of responses to these concerns.

First, one cannot lose sight of the fact that incentive-based wellness programs are designed to encourage healthy behavior and discourage unhealthy behavior that not only drive up costs for society as a whole, but also have a tangible impact on the relevant employee population as well. The prevalence of chronic disease in the U.S. results in higher health costs associated with greater demand for and use of health care services, which in turn drives up the cost of health care coverage. In every year since 1998, premium increases have exceeded worker-earnings increases and inflation.[40] Health insurance premiums have nearly tripled, while worker earnings have increased 54%.[40] In addition, because employers generally cover some part of health care costs for their employees, these higher health-related costs and other employee benefits are subtracted from employee salaries and total compensation.[14] Accordingly, improving the health risk profile of workers can benefit all employees in the employer pool through a reduction in premiums and an increase in dollars available for compensation. This dynamic is equally applicable in government-sponsored programs where rising health care costs borne by the government crowds out spending in other important areas such as education, capital improvement projects or, in the case of the federal government, defense spending.

Therefore, the overall goal of, and results derived from, incentive-based wellness programs are inherently good and beneficial to everyone. As such, the question to ask is not whether we should support these types of programs, but rather "How can they be structured to minimize any unintended consequences?"

In answering this question, it is important to look at design and structure – and try to promote those features that help to eliminate barriers that make it more difficult for some individuals to engage in healthy behaviors and avoid disease and disability. A number of laws and regulations at the federal and state level, including the Health Insurance Portability and Accountability Act (HIPAA) and the Affordable Care Act (ACA) impose requirements and regulate the use of financial incentives in certain types of wellness programs. These wellness-related provisions permit employers to develop programs aimed at improving health. However, any rewards offered under such a program for achieving an outcome or a health-related standard must be available to all similarly situated individuals and allow for a reasonable alternative standard or waiver when it is medically inadvisable for an individual to try to satisfy a standard, as well as when medical conditions make it unreasonably difficult for an individual to satisfy a standard. Employers must also limit use of incentives in this context to 30% of the cost of coverage with ability for that amount to be raised to 50% in certain specified circumstances. While these types of legislative and regulatory actions can play an important role in striking an appropriate balance to protect individuals from discrimination while, as President Obama stated, encouraging more employers to adopt incentive-based wellness programs in order to "improve the productivity of our workforce, delay or avoid many of the complications of chronic diseases, and slow medical cost growth"[12] – it should be noted that the current ACA regulations swing the pendulum too far. As a result, individual responsibility and personal accountability are severely diluted at the expense of realizing the full and significant potential of incentive-focused wellness programs.

Even beyond what is legally required, there are other design features of an incentive-driven wellness program that can minimize any potentially discriminatory impact. For example, consumer-focused incentives have generally been shown to be more effective when framed as a reward rather than a penalty.[10] It is therefore not surprising that consumer-focused

incentives are typically framed in this way, with 84% of employers reportedly using rewards rather than penalties.[13] Where penalties – or sticks – are used, they may be most appropriate to encourage simple behavior that is within the individual's control – like completing a health risk assessment or getting a biometric screening – and/or where the employer has effectively removed all barriers to successful participation, like conducting screenings on-site, allowing the employee sufficient time from his/her workday to complete the activity or otherwise subsidizing the cost.

Additionally, consumer-directed incentives are also most effective when they are part of a comprehensive program that offers a variety of ways for people to participate, as well as broad based education, awareness, communication and support services.[10,11] Understanding that individual's needs, starting points and preferences may drastically differ is important in any incentive-driven wellness program – and therefore giving participants more freedom to choose the methods best suited to overcoming their obstacles or achieving the desired goal is the preferable design approach. Tightly tied to this approach is the notion of progress based standards or tiered incentives. For example, while an employer may want to offer an incentive for employees who maintain a healthy weight, they may also offer an incentive for people who make significant progress toward meeting this goal – such as losing 10% of their body weight. The more tailored to an individual or population an incentive program can be, the less likely it will be discriminatory.[11]

In short, the use of incentives as part of a comprehensive well-designed wellness program is an important way to engage individuals in their health and encourage the steps necessary to optimize that health, which can have a substantial impact of health care costs and productivity levels. Any unintended discriminatory impacts can be mitigated through thoughtful program design.

Incentives to Improve Health Care Buying Decisions.

In order to minimize the impact of "moral hazard" in the context of health care – that is, the tendency of individuals to increase utilization of medical services paid for by insurance compared to those services not covered – insurance plans should be ideally designed so that individuals are incentivized to undertake medical care when the expected utility, taking into consideration the probabilities of positive outcomes, exceeds the expected cost.[6] It is with this goal in mind that the concept of designing health plans to increase consumer awareness of health care costs, thereby incentivizing better health care buying decision, has emerged as an important and powerful tool.

Employers have experimented with increased cost-sharing with employees by raising employee contributions, deductibles, and copayments/coinsurance. The most popular type of cost-sharing – consumer-directed health plans or CDHPs – truly took hold in the 1990s and generally takes the form of higher deductibles and personal health savings accounts structured as either health reimbursement accounts (HRAs) or health savings accounts (HSAs). The goal of these plans is to incentivize consumers to understand the costs of care and make appropriate health care buying choices. This strategy is premised on the idea that consumers will be incentivized to make better decisions about seeking care and using cost-effective services when they bear responsibility for a portion of the cost. Accordingly, an important aspect of CDHPs is to couple cost- sharing with consumer information about treatment alternatives. These products are an example of a highly integrated consumer-focused incentive tool that encourages individuals to take greater responsibility and accountability for their own health care decisions by engaging in those decisions and seeking information about available options.

Today, CDHPs are growing in popularity with 56% of employers offering them and another 30% intending to add them in the future.[19] Employers offering CDHPs are also more likely to also maintain a wellness program – which, in many cases, makes CDHPs an important component of an overall health promotion effort.[40]

When consumers do enroll in CDHPs, they have widely documented success in improving quality and reducing costs for consumers and employers. A recent RAND study[21] found that increasing CDHP enrollment to 50% of those with employer-sponsored health insurance would result in an annual savings of $57 billion in health care costs, equivalent to a 4% decline in total health care spending for the non-elderly. An increase to 75% would save more than $85 billion (a 5-9% decline in total spending). In addition, the study showed that patients enrolled in CDHPs had: fewer episodes of care; fewer visits to specialists; fewer hospitalizations; lower use of brand-name drugs; and fewer preventive services such as cancer screenings (even though those services were fully covered) — all of which lowered their costs. The author noted that these findings "suggest that these plans do induce changes in treatment choices and not just access."[21]

A 2012 study by the Robert Wood Johnson Foundation reviewed CDHP studies published between 2002 and 2011.[22] It found that CDHPs reduce health care spending by between 5% and 14% on average, with the reductions concentrated on out-patient services and pharmaceuticals. The study also found that CDHPs generate greater spending reductions among low- or

medium-risk enrollees more than among high-risk enrollees and suggests that spending reductions are greater in plans with larger deductibles and smaller employer contributions to HRAs.

A 2009 analysis by the American Academy of Actuaries[20] reviewed studies through April 4, 2008 that were based on actual plan experience and historical claims data; used a credible methodology; and whose results were detailed and relevant. The findings from the study were that properly designed CDHPs can produce savings that ranged from 12% to 21% over traditional plans without adversely affecting individuals' health over both the short- and longer-term time horizons.

Additionally, there is evidence that the goal of CDHPs – to incentivize individuals to be more engaged in their health care buying decisions and make better choices – may be closer to realization. A 2013 EBRI/Greenwald & Associates Consumer Engagement in Health Care Survey[40] found evidence that enrollees in CDHPs were more likely than those in a traditional plan to exhibit a number of cost-conscious behaviors. Specifically, CDHP enrollees were more likely to:

- Check the scope of their plan coverage; ask for a generic drug instead of a brand name; talk to their doctors about prescription options and costs; talk to their doctors about other treatment options and costs; ask a doctor to recommend less costly prescriptions; develop a budget to manage health care expenses; check the price of a service before getting care; and use an online cost-tracking tool provided by the health plan.
- Be engaged in their choice of health plan – with those in a CDHP more likely to have: visited health plans' websites to learn about their plans; attended a meeting where health plan choices were explained; used other websites to learn about health plan choices; and consulted with an insurance broker to understand plan choices.
- Take advantage of various wellness programs, such as health-risk assessments, health-promotion programs, and biometric screenings. In addition, financial incentives mattered more to CDHP enrollees than to traditional-plan enrollees.

However, despite the documented effectiveness of incentivizing better individual health care buying decisions, critics of the plans have raised fundamental concerns regarding their use. The concerns revolve generally around three themes: (1) they are a device to shift costs to enrollees; (2) they reduce preventive services which might have unintended negative consequence to long-term health and costs if diseases are not detected early; and (3) since employees in good health may be more likely to select CDHPs, traditional plans may enroll a larger proportion of sick people, making those plans less financially stable.

Each of these concerns is addressed below.

Cost Shifting. CDHP plan designs can be used to shift costs from employers to their employees. However, given the rapidly rising cost of health care and the desire of employers to stem the tide, employers who wanted to cost-shift could do so under traditional plans as well in the form of increased deductibles, copays, coinsurance requirements and/or employee payroll contributions. As one study noted,[20] "If, in fact, an employer implements a CDH plan that increases employee cost share, one must consider whether or not employee cost share would have increased more or less in the absence of the CDH plan introduction." Accordingly, many employers view CDHPs not as a cost-shifting mechanism so much as an additional step to increasing individual engagement which in turn will result in lower cost.

This is borne out by the fact that there is evidence that the actual cost-share for CDHPs being offered in the market is similar to the levels for corresponding traditional plans.[20] This is because, although CDHP designs usually incorporate a high-deductible element as an important component, they generally also have an account feature (HRA or HSA) that is included in the plan design. Thus, similar to traditional plans, CDHP designs can be developed with relatively high employee cost share or relatively low cost share depending on the design of its various plan features. The determination of how rich to make a plan is not unique to CDHPs, but is a decision made by the employer based on its objectives and needs.[20]

It should be also noted that it is not only employers, but families who benefit from the savings that can be generated by the use of CDHPs. A 2013 study[21] found that "spending per family by those in consumer-directed plans was lower than spending by families in traditional plans across a broad range of services." This resulted in 20% lower out-of-pocket costs.

Impact on Preventive Care and Health. While a number of studies have shown that CDHPs can generate cost savings, in part through reduced utilization of health care services, including in some cases, preventive care services[6,21]– others have shown the opposite to be true with respect to preventive care.

One study[20] found that preventive services among CDHP enrollees actually increased significantly – noting that the impact was likely due to fact that the plans did not charge enrollees for commonly recognized preventive care *and* increased

messaging to CDHP participants to better inform them of their benefits of their plan design. A recent Robert Wood Johnson study[22] found that CDHPs generate modest to no reductions in the use of preventive services when they are fully insured at dollar one.

The additional factor of communication and education is particularly interesting when considering the results of a third study.[21] It reported that preventive treatments in its study were negatively affected in the first year of CDHP enrollment, despite the fact that those services were offered at no cost. This led the authors of the study to conclude that "full coverage of preventive care services without a deductible, known as first-dollar coverage, is clearly not enough to ensure their delivery. The challenges of educating enrollees about their plan provisions are well known, and ongoing communication with plan enrollees may be necessary to improve their understanding and use of preventive service benefits."[21]

Regardless of whether studies demonstrated that preventive services increased or decreased as a result of enrollment in CDHPs, we are not aware of any study that indicates that this reduction in utilization had an adverse impact on health.

In fact, just the opposite has been shown. The seminal 1972 RAND study stands for the principle that designing health plans to increase consumer awareness of health care costs is an effective way to reduce moral hazard effects on utilization without producing adverse health effects.[42] That study specifically showed that, with few exceptions, those receiving free care had substantially the same health levels as those having to pay a portion of the costs.[43] Additional analyses of the RAND data in 1987 showed that not only does increased cost-sharing reduce expenditures on medical services, but also that such cost-sharing does not lead to patients foregoing treatment: "It appeared that the introduction of cost-sharing reduced the number of visits and therefore the total costs of treatment, but did not prevent patients receiving the appropriate treatment when needed."[43]

In addition, there is evidence that supports the notion that where there is decreased preventive care consumption by enrollees, they may be making appropriate trade-off decisions regarding their treatment options. One study[22] suggests that when potential substitutes for screening tests are available, CDHP enrollees are more likely to choose the less expensive option – choosing, for example, to forgo the more expensive colorectal cancer screening method (colonoscopy) in favor of the less expensive and covered alternative. That same study found that emergency room visits were reduced as CDHP enrollees cut back on visits for low severity conditions "suggesting that they were effectively adjusting utilization based on the expected value of seeking care in the emergency department, a more expensive setting."[22]

Impact on Risk Selection. The theory of adverse selection in the context of a CDHP is that, when presented with a choice of plans, the healthier risk individuals may be more attracted to CDHPs leaving less healthy risk in traditional plans. As a result, the traditional plans will experience increased costs which are borne disproportionately by unhealthy individuals and will be unsustainable over time.[6]

Study results do seem to support the notion that newly offered CDHP options attract healthier employees and families whose health care costs are less than those who enroll in traditional plans.[21,22]

However, this risk of adverse selection is less of an issue with larger employers who generally have the ability to self-insure because ultimately the employer is at risk for the spending of the entire population.[21,22] In addition, fully-insured employers have the ability to offset the risks of adverse selection through its program design – for example, by offering more generous HRA/HSA contributions or modifying its employee contribution policy.[22] Therefore, the issue of adverse selection may present more of a concern in the small group and individual market; however, there is no research to demonstrate whether or how these dynamics actually play out in these markets in the context of a CDHP.[22]

The ACA may help to address some of the concerns – real or perceived – in these markets.[21] Specifically, the ACA creates three risk management programs intended to protect consumers by stabilizing premiums during the initial years of the law's implementation. Two of these programs are temporary and will provide premium stability for consumers in the first three years of the reformed markets. The third program was designed to protect against adverse selection. Together, these three programs help to create a stable and predictable environment for consumers seeking health insurance coverage in the reformed markets. These risk adjustment mechanisms may help to maintain a broad choice of plans in the individual and small-group markets.[21]

Overall, CDHPs have tremendous potential to incentivize consumers to be more aware of health care costs, thereby increasing activation and engagement, which in turn has proven to be effective at reducing costs. While concerns around CDHPs have been raised, those concerns can be minimized through careful plan design, consumer education and effective communication.

V. Recommended Areas of Focus

Our review of a wide range of studies and research regarding consumer-focused incentives suggests that there are five areas of focus that could have a tremendous impact on their effectiveness and adoptions rates: increased support for employer efforts; aggressive pursuit of broader adoption of incentive-based wellness programs in government-sponsored health plans; greater transparency of information; support for legislative actions and policies that enable and support incentive-based health engagement; and the funding of additional research. Each of these is discussed below.

1. *Increased support for employer efforts.* Employers have been an engine of innovation with respect to wellness and health promotion. They are uniquely capable of driving increased consumer health engagement due to: the shared culture and common purpose they create; their established communication platform; their support environment; and their ability to influence behavior. Employers provide health care for almost half of the American population and have the ability to reach even more. Their efforts in driving increased individual accountability and engagement do and can have a substantial impact on U.S. health care costs. Accordingly, advocacy efforts should be undertaken to harness, fuel and draw from the experiences and results of their efforts to incentivize engagement of their workforce in health, well-being and health care buying decisions. To that end, the following specific actions should supported:
   - Employers should be encouraged to stay engaged in the provision of health care coverage and to adopt, continue or expand supporting comprehensive wellness programs. The passage of the ACA has brought into question the viability of the employer-sponsored market on an ongoing basis. However, loss or significant reduction of employer support in this area would result in the loss of a powerful driver of health care cost reduction and would add tremendous burden to the health U.S. health care system.
   - One way to encourage employers to remain invested in health and wellness promotion is to provide them tax credits for implementing bona fide health and wellness programs. These tax credits would partially offset the costs of designing, implementing and maintaining these programs.
   - Another effective way to increase adoption of well-designed consumer-focused incentives would be to create a clearinghouse supported by an academic institution that collects, disseminates and deploys objective and accessible information regarding best practices, as well as easy-to-use resources, tools, and expertise to support adoption efforts. This could go a long way in helping employers – particularly smaller employers – to adopt evidence-based practices needed to design, implement, and consistently evaluate their workplace programs.

2. *Aggressively Pursue Broader Adoption*. Given the number of studies that have demonstrated the effectiveness of consumer-focused incentives to engage individuals in their health care decisions, particularly in the employer market, proponents of consumer engagement should advocate to aggressively expand the use of basic incentive-based wellness models to all government-sponsored programs. All programs, including Medicare and Medicaid, should have some relative financial obligation, incentive and reward structure to avoid the pitfalls of moral hazard discussed above in Section III. Many Medicare Advantage plans, have made tremendous strides in this area; however broader and more universal adoption of these types of programs should be the standard, not the exception, in government-sponsored health care.

3. *Make information more transparent.* An important ingredient in driving consumer engagement is providing information to the consumer in an actionable way that can lead to change in behavior and increase value. As consumers become more engaged, they will seek additional information regarding the cost and quality of care. However there is relatively little consumer accessible information available about: the cost and quality of health care professionals, procedures and services; or the comparative effectiveness of various treatment options. The ACA provides funding for comparative effectiveness research; and it and other legislation calls for the release of Medicare quality data to supplement that from private payers. The results of those initiatives should be disseminated in an easy to understand format for the benefit of all consumers. Without such information, it is difficult for consumers to make meaningful health care choices.

4. *Support Enabling Legislation.* Vigilance should be exercised to ensure that state and federal legislative and regulatory policy enables rather than hinders individual engagement in health care. Hindrance of engagement may take many forms: further divorcing individual consumers from the underlying cost of health care and the role that they play as a key driver of those costs (such as the current ACA legislation; see discussion in Section III above) or constricting the ability of employers to exercise flexibility and innovation with respect to consumer-focused incentives as part of a comprehensive wellness strategy. Where such legislation exists, change should be advocated, and where such legislation is proposed, it should be vigorously challenged. Additionally, analyses should be undertaken to make the case for the Congressional

Budget Office to score the effect of such consumer-focused incentive-based programs in a more realistic, meaningful way. If successful, this could go a long way to encouraging more legislation and public program adoption.

5. *Fund additional research*. Nearly all of the studies and papers that we reviewed noted the need for additional research to determine the most effective incentive designs to engage individuals in their health and health buying decisions. For example, although there is sufficient evidence to support the fact that incentive-driven wellness programs and CDHPs are effective engagement tools, additional research around the impact that various design features can have are needed to maximize their impact. Pilot projects can be launched in partnership with innovative employers who could serve as laboratories for testing innovative approaches to improving workers' health.

In order to make meaningful ground in advancing these initiatives, key stakeholders (e.g., patient advocacy groups, employers and key policy makers) should convene with the goal of identifying paths to make appropriate levels of individual engagement and accountability part of the solution to the U.S. health care crisis.

VI. Conclusions

Over the last several decades, an epidemic of lifestyle diseases has developed in the U.S. Unhealthy lifestyles, such as inactivity, poor nutrition and tobacco use are driving up the prevalence of chronic disease which have led to decreased quality of life, premature death and disability, and increased health care cost. Although chronic disease was once thought to be a problem of older age groups, there is a shift toward earlier onset of these diseases. Approximately 8% of children ages 5 to 17 were reported to have activity limitation due to at least one chronic illness or disability and more than 50 million Americans under 65 years old have some type of pre-existing condition.[3] As a result, the U.S. has the leading rates of chronic disease and today's children are on track to be the first generation in American history to live shorter, less healthy lives than their parents. Additionally, when chronic diseases impact working adults, the economic impact is substantial, due to illness-related loss of productivity as a result of absence from work and reduced performance while at work.

In order to combat the ever-increasing cost of medical care required to treat these health issues, individuals must be engaged as consumers and not simply patients receiving care. In other words, individuals must bring the same level of diligence, care, inquisitiveness and demand for a logical correlation between quality and cost that they bring to nearly every other consumption decision that they make – and thereby become active participants in the health care system.

An effective way to accomplish this is through the use of consumer-focused incentives to influence individual behaviors both in terms of improving their own health and health management and helping them to make better buying decisions. Use of incentives as part of an integrated and comprehensive wellness and health promotion strategy have been shown to deliver improvements in health, as well as increased sustainability and affordability of care.

Employers have been drivers of innovation and advancements in this area given their unique ability to create a community and culture of health for their employees. Not only should their efforts be encouraged, harnessed and fueled – their successes should be replicated more broadly in government-sponsored health care programs. Legislative and regulatory efforts and policies should be advanced to support this expansion which will ultimately have a significant positive impact on health care spending in the U.S.

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