IBM Global Business Services

White Paper

LIVING WELL: Transforming America's Health Care

Public Sector

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LIVING WELL: Transforming America's Health Care

Executive Summary

IBM has developed a comprehensive and practical approach to addressing America's health care crisis. IBM's employer-based approach, the Living Well program, will slow the growth of health care costs for the public and private sectors and improve health outcomes for individuals. Living Well aims to capitalize on the advantages demonstrated by existing wellness programs. A review of these programs shows plans that have operated for an average of 2.5 years have reduced health care claims by 2-4%. In addition, we estimate that for every dollar invested in the Living Well program by employers, there will be a $1.50 to $3.00 increase in productivity based on experiences with existing programs.[1]

This paper outlines the challenges facing the U.S. health care system, how prevention can help address these challenges, examples of wellness and prevention programs, suggestions for program components and design, and proposed standards for the federal government to adopt to promote quality and effective programs. The Living Well plan brings together the best preventive care knowledge from the public and private sectors and offers the first real opportunity to transform the health of Americans, improve the quality of health care, and slow the growth of health care costs. The plan calls for a shift in emphasis in the way American health care is administered away from disease management towards a strategic investment in prevention and wellness. Living Well has four primary components:

- Patient-centric primary health care with the physician being paid for effective wellness management.
- An underlying technology infrastructure to simplify and accelerate all transactions in the health care process.
- A simpler, cheaper and faster health care process that largely eliminates paperwork for doctors and patients to give patients more control over their own health and doctors more time to focus on providing care.
- A standards and certification process that can be applied by the Center for Disease Control (CDC) for all participants in the Living Well program.

Today, 97% of the $2 trillion U.S. health care budget is spent on disease management. Over time, through implementation of living well programs, the nation will become healthier, the growth of health care costs will slow and the U.S. will see the first opportunity in decades to control the country's spiraling total health care expenditures. At the same time, the money saved can be reallocated to a comprehensive and well-funded national approach to wellness and disease prevention.

Currently, the U.S. health care system is designed to pay for the treatment of sickness. The 20% of the U.S. population with chronic diseases use 80% of the health care resources. Under the Living Well program, health care providers will be paid for improving health, not just for treating diseases. As costs fall due to a healthier population, insurance companies will reward health improvement with lower insurance premiums. The Living Well program assures that companies and organizations who help their employees lead healthy lives will see overall costs fall.

Living Well draws from the latest experiences in prevention and wellness programs in the private and public sectors to create a template of best practices enabled by technology. IBM hopes that this set of wellness approaches will be easy for companies and government agencies to accept and implement.

IBM views Living Well as the first step in a series of national conversations designed to integrate a paradigm shift to help all Americans — patients and health care providers — live healthier and more productive lives.

Much of the suffering, illness, disabilities, deaths, and resulting economic costs we pay as a nation could be avoided by effective preventive health programs.

A Broken Health Care System

The health care industry is a $2 trillion annual business accounting for $1 out of every $6 spent in America. According to the Centers for Medicare and Medicaid Services, health care costs will continue to rise faster than inflation and by 2016 spending on health care will total nearly $4 trillion, representing $1 out of every $5 spent in the economy.[2]

These estimates do not take into account the exponential advances in health care that will emerge in the next decade from nanotechnology, genomics, radiology and pharmaceuticals. Much like the medical technology advances of the last 20 years, these advances will allow disease to be treated in new and often successful ways, but at a significant monetary cost.

Today, the U.S. spends 16% of its gross domestic product on health care compared with 9.7% in Canada and 9.5% in France, and the percentage of GDP spent on health care in the U.S. will reach 20% in the next decade.[3] Despite these large expenditures, in 2002 the World Health Organization reported that the populations of 28 other nations enjoyed longer life expectancies than the population of the United States. Much of the suffering, illness, disabilities, deaths, and resulting economic costs we pay as a nation could be avoided by effective preventive health programs.

The Institute of Medicine reported in 2003 that "the vast majority of health spending, as much as 95 percent by some estimates, is directed toward medical care and biomedical research. However, there is strong evidence that behavior and [the natural, built, social,

and economic] environments[s] are responsible for more than 70 percent of avoidable mortality, and health care is just one of the determinants of health . . ."

Out of Control Health Care Costs

Health care costs continue to grow out of control with little improvement in the health of the U.S. population. For example,

- While CDC funds have increased from just under $4 billion in 2000 to $7.7 billion in 2003, and to $8.4 billion in 2006, much of this can be attributed to post-9/11 terrorism preparedness activities, rather than core public health functions. Approximately 80% of CDC's appropriated funds are redistributed to the states and to private partners to support a variety of health and safety services and programs. The amount redistributed to the states was on average $20.99 per person in FY 2005.

- According to the National Coalition on Health Care, in 2005 (the most recent data available) total national health expenditures rose by 6.9%, more than two times the rate of inflation.

- In 2006, employer health insurance premiums increased by 7.7%. The annual premium for an employer health plan covering a family of four was nearly $11,500. A 2006 study by the Kaiser Family Foundation and Hewitt Associates found that health care premiums in the United States had risen 87% since 2000 compared to cumulative inflation of 18% and cumulative wage growth of 20% during the same period.

- The average employee contribution to company-provided health insurance has increased more than 143% since 2000. Average out-of-pocket costs for deductibles, co-payments for medications, and co-insurance for physician and hospital visits rose 115% during the same period.

The Cost of the Uninsured

The economic and political costs of universal health care may be prohibitive when weighed with alternative demands for government services. However, a different approach that places the emphasis on health and disease prevention would free up capital that could be reallocated to wellness and prevention programs for the uninsured. While this population segment will be more challenging to serve, the health benefits would be clear and so the burden of the uninsured on cities, states and the federal government would be reduced. Prevention could reduce pressure on budgets for disease management, thereby creating the opportunity to reallocate these savings to insure the presently uninsured.

Currently, 61% of the U.S. population is covered by an employer's health plan and others purchase their own coverage leaving nearly 47 million people or 15.9% of the population uninsured, a figure that is expected to rise to 75 million by 2017. The number of uninsured has increased by almost 7 million people since 2000, and yet 80% of the uninsured come from working families.

Increasingly, insurance has simply become too expensive both for families and for businesses. According to the Census Bureau, a third of all businesses did not offer health insurance, while 266,000 small businesses dropped their health coverage between 2000 and 2005. Aside from possible arguments about the moral obligations of a society to care for its people, the uninsured pose an increasing burden on an already over-taxed health care system. Fifty percent of uninsured children do not receive a well child check-up, twice the rate of insured children. The uninsured typically receive less preventive care and are diagnosed with diseases when they are much further advanced, resulting in a cost to the health care system that is proportionally much larger than from those who are insured.

In dollar terms, the U.S. spends $100 billion a year to provide health services to the uninsured, and hospitals provide $34 billion of uncompensated health services to the uninsured each year. These expenses are often for treating preventable diseases that could have been managed more efficiently and at much lower cost if caught earlier as part of a wellness program.

There is a significant and growing divide between those who have access to health care and those who do not. This means that under the current model, access to wellness programs and reduced costs to the whole health care system will be confined to the most proactive and well-funded companies that offer these services for their employees. For states and cities where employees are generally self-insured, the costs of health care are passed along directly to the taxpayer while the uninsured and under-insured form an ever larger percentage of the unfunded burden on an already overstretched system.

Aside from private state and federal health insurance programs, the government has two separate funds, Medicare and Medicaid that provide insurance. Medicare is a federal health insurance program covering nearly 43 million Americans – the 36.7 million people over the age of 65, as well as the 6.3 million people under age 65 with permanent disabilities. Medicaid is the nation's major public health insurance program for lower-income Americans, financing health and long-term care services for over 54 million people, including children and many of the chronically ill and poorest in our nation. The program is financed by the federal government and individual state governments.

The U.S. current financial commitments to these two programs are immense. With no changes, costs are estimated to grow to almost 20% of GDP, with a projected shortfall of

over $35 trillion between now and 2080. Unless things change significantly, the country in which our next generation lives and works could face this unmanageable burden.

Today, rising health care costs have created a seismic shift in how health care reform is viewed with both large corporations and trade unions coming together to ask for greater government participation in the provision of health care.

The Competitive Disadvantage

In 1993, when the first term of the Clinton Administration attempted to introduce comprehensive health care reform, there was widespread suspicion of greater government involvement in delivering health care solutions to the country at large. Today, rising health care costs have created a seismic shift in how health care reform is viewed with both large corporations and trade unions coming together to ask for greater government participation in the provision of health care.

For example, a new coalition of unions and big business called the Better Health Care Together campaign has been formed to push for a better health care system and universal coverage by 2012. The group includes Wal-Mart, AT&T, Intel, and Kelly Services as well as the Service Employees International Union and the Communications Workers of America.

However, exactly what that reform might look like is the subject of disagreement among both unions and business. General Motors, for example, insures 1.1 million workers, retirees and dependents at a cost of $5.6 billion a year – the equivalent of $1,525 for every car the company produced and one of the main reasons the company is running at a loss.

According to the Partnership for Prevention, a non-profit that promotes wellness in the workplace, the indirect costs (e.g., absenteeism) of poor health can be two to three times the direct medical costs, and productivity losses related to personal and family health problems cost U.S. employers $1,685 per employee per year, or $225.8 billion annually.

But GM's experience, while painful, is not the same as all of corporate America. The big U.S. car manufacturers are locked into health care deals with their unions that are expensive and tied to their aging demographic where an increasing number of the beneficiaries are retirees. U.S. automakers that honor their commitments to provide health care for beneficiaries could turn to wellness programs to aid in cost savings and better health outcomes.

But, even for newer companies such as Wal-Mart, pressure from the workforce to provide health care is strong, and in a highly competitive environment, double digit increases in health care costs year after year can mean the difference between profit and loss.

What is clear is that if employers continue to treat health care as an expense and not an investment, they will continue to face increasing health care costs in an imperfect market. However, if they see health care as an investment then two clear benefits will be delivered: first, the investment places an organization at a competitive advantage through better management of a healthier workforce if the benefits of the program exceed the costs; second, proactive management of the causes of illness rather than the effects will allow for much closer control of market forces.

The leading causes of death in the U.S. are heart disease, cancer and stroke, which are all illnesses that are either preventable or treatable if detected early enough.

Prevention Can Be the Cure

What concerns every insurer from businesses who pay the premiums and cities and states who largely self-insure is that all the statistics suggest that the situation is only going to get worse. The leading causes of death in the U.S. are heart disease, cancer and stroke, which are all illnesses that are either preventable or treatable if detected early enough. According to the Surgeon General, just 3% of all Americans meet at least four of the five federal Food Guide Pyramid recommendations for the intake of grains, fruits, vegetables, dairy and meats. Less than one-third engage in at least 30 minutes of moderate physical activity five days a week, and 40% of adults engage in no leisure-time physical activity at all.

Obesity. Obesity alone costs U.S. companies $13 billion in health costs and 39 million workdays lost. According to the CDC, obesity is the link to chronic diseases such as diabetes, arthritis, heart disease and cancer. Combined, these chronic diseases cost employers more than $220 billion annually in medical care and lost productivity. The shift from a manufacturing base to service-based business sectors means that more workers are becoming sedentary and today 33% of Americans are overweight.
But obesity is not just a problem for employers and workers.

Childhood obesity is a critical public health threat. The percentage of children who are overweight has more than doubled, and among adolescents the rates have more than tripled since 1980. Obesity is a risk factor for health conditions such as diabetes and is associated with other problems such as poor self-esteem.

Twenty years ago, diabetes was a comparatively rare illness. Obesity has produced a chronic epidemic of Type 2 Diabetes with 20.8 million children and adults – 7% of the population – having diabetes today. A further 54 million people have sufficiently high glucose levels to be considered at risk for diabetes.

Aging population. One hundred years ago, only 3 million people in this country were aged 65 or older. Today, more than 36 million Americans are in this age group, and that number is expected to grow during the next 25 years to over 70 million as baby boomers age. The aging of America is triggering a higher demand for health care and social

services. Currently, about 80% of older adults have at least one chronic condition, and 50% have at least two. These conditions can cause years of disability, pain, and loss of function. Three million older adults indicate that they cannot perform basic activities of daily living such as bathing, shopping, dressing, and eating. Their quality of life suffers as a result, and demands on family and caregivers can be challenging. Because the population will be older and greater in number in the coming years, overall U.S. health care costs are projected to increase 25% by 2030. Preventing health problems is one of the few known ways to stem rising health care costs. By preserving function and preventing injury, we also can help older adults remain independent for as long as possible, which can improve their quality of life and delay the need for costly long-term care.

Chronic diseases. Chronic diseases such as heart disease, cancer, and diabetes are leading causes of disability and death in the United States. These diseases are responsible for approximately 7 of every 10 deaths in the United States. The number of deaths alone, however, fails to convey the full picture of the toll of chronic disease. More than 133 million Americans live with one or more chronic conditions, and millions of new cases are diagnosed each year. Thus, an even greater burden befalls Americans from the disability and diminished quality of life resulting from chronic disease.

Although chronic diseases are among the most prevalent and costly health problems, they are also among the most preventable. Effective measures exist today to prevent or delay much of the chronic disease burden and curtail its devastating consequences. To a large degree, the major chronic disease killers — heart disease, cancer, stroke, chronic obstructive pulmonary disease, and diabetes — are an extension of what people do, or do not do, as they go about the business of daily living. Health-damaging behaviors — in particular tobacco use, lack of physical activity, and poor nutrition — are major contributors to heart disease and cancer, our nation's leading killers. A single behavior — tobacco use — is responsible for over 80% of deaths each year from chronic obstructive pulmonary disease, the nation's fourth leading cause of death.

Decreasing the burden. To be clear, strategies to reduce the underlying burden of disease should include the following: health promotion, screening for early detection of diseases and their risk factors, counseling for behavioral and lifestyle changes, immunizations, primary and secondary prevention, and chronic disease treatment and control. The U.S. Department of Health and Human Services (HHS) lists prevention as one of their key priorities for effective management of the nation's health. HHS breaks their prevention strategy into four broad categories: physical activity, nutrition, preventive screenings and healthy choices (smoking, drugs, and drinking).

The exact structure of a prevention strategy depends to a very large extent on the make up of the target group with wide variations between, for example, the employees of a coal

mining company and those of a software business in Silicon Valley. But, even allowing for such differences, specific strategies for effective wellness management must be adopted by every purchaser of health care.

The structure of the American health care system is specifically designed so that physicians are paid to spend time treating diseases, not keeping people healthy.

The Doctors' Dilemma

Nobody questions the commitment of doctors to their patients. Physicians have one main goal in their profession — to keep their patients healthy — and they devote as much time as possible to achieving that goal. Yet the structure of the American health care system is specifically designed so that physicians are paid to spend time treating diseases, not keeping people healthy. In addition, the cumbersome health care system means that physicians spend more and more of their time and money on administration. A study by the American Medical Association estimates that a physician spends an average of six minutes on each claim and the physician's staff spends an average of one hour.

According to a 2005 study in the journal *Health Affairs*, administrative costs account for 25% of health care spending, but little is known about the portion attributable to billing and insurance-related (BIR) functions. One study in California suggested that private insurers spend 9.9% of revenue on administration and 8% on BIR. Physician offices spend 27% and 14%, and hospitals spend 21% and 7%–11%, respectively. Overall, BIR represents 20%–22% of privately insured spending in California acute care settings.

What is striking about all these figures — and there is disagreement at every level of the health care system about what the right figures actually are — is that all involved recognize how much of a bureaucratic nightmare the health care system has become. At the start of the health care process, a patient has to fill in the same forms many times over with each form representing a duplication of what could be a standardized process with technology enabling the sharing and access of common data. The system itself is largely opaque to everyone involved and it is difficult, if not impossible, for physicians or patients to access records in a timely and transparent fashion. And that's just the treatment. Nobody truly understands the ever changing landscape of billing and payments.

Wellness and Prevention

For the past 20 years, businesses and governments have been experimenting with a new approach to health care that involves what have become known as Wellness and Prevention programs. These programs come in many forms but are designed to reduce health care needs by encouraging employees and their families to be better educated and motivated to take care of themselves.

Wellness programs have proved to provide remarkable short- and long-term returns.

Some common objectives of these programs are managing weight, stopping smoking, eating nutritious foods, and being physically fit. All wellness programs also have relationships with doctors, hospitals and insurance providers to allow for screening of employees to catch diseases at an early stage when treatment is much less expensive.

Wellness programs have proved to provide remarkable short- and long-term returns. For example, Pitney Bowes, the business services company, introduced a wellness program 15 years ago that has evolved to include free clinics, fitness programs and low-cost or free drugs for certain types of illnesses. Annual health cost increases have fallen into the low single digits compared to the double digit growth experienced by most companies.

Microsoft established a To Life wellness program aimed at employees who were 40-50 pounds overweight after learning that this group generated 35-40% higher health care costs. All employees who sign-up are reimbursed 80% of the cost of the program and Microsoft pays $6,000 per employee. Within three years, the company experienced 100% return on its investment though greater productivity, fewer days lost and lower health care costs.

IBM currently pays $2 billion a year to insure 500,000 people. Its current wellness program costs $20 million a year but saves the company $100 million, an outstanding return on investment that has been mirrored across other industries.

Those three companies do not begin to describe the prevention and wellness programs that have been created by CEOs of many of the nation's leading companies as a strategy to directly affect the bottom line. For example, the National Business Group on Health, a national non-profit, recognized in May 2007 more than three dozen U.S. employers "for their continuing efforts to promote healthy work environments and encourage workers to live healthier lifestyles." Among the companies winning awards were Dell, Kellogg, Union Pacific Railroad, Cisco, Cigna and General Mills.[4]

According to the Partnership for Prevention, a review of 73 published studies of worksite health promotion programs shows an average $3.50-to-$1.00 savings-to-cost ratio in reduced absenteeism and health care costs. In addition, a meta-analysis of 42 published studies of worksite health promotion programs shows an average 28% reduction in sick leave absenteeism, a 26% reduction in health costs, a 30% reduction in workers compensation and disability management claims costs, and an average $5.93-to-$1.00 savings-to-cost ratio.[5]

The benefits of wellness and disease management programs are not reserved for private sector companies. An independent evaluation of the Community Care of North Carolina clinical program showed that a program cost of $10.2M in state fiscal year 2004 produced a savings of $124M over the previous state fiscal year in in-patient,

out-patient, emergency department, physician services, pharmacy, and administrative costs.[6] The program focuses on improved quality, utilization, and cost effectiveness of chronic illness care for Medicaid recipients through participating physicians in a local area and promotes wellness. It relies on initiatives such as asthma and diabetes disease management to develop regular assessments of the diseases, educates patient and families about the diseases, and establishes consistency of care. The asthma initiative alone led to a 16% decrease in emergency room visits from FY2003 to FY2006 and medical practices participating in the program did better in four performance measurements during the same time period.[7]

Wellness programs are investments made to provide both current and long-term benefits. The benefits from some effective programs will be lower at first but will increase as the cumulative effect of better health habits accrues. The reduction in the incidence of employee illness will result in a reduction of employer-paid health care costs. Since employer paid health care cost per incident increases over time because of inflation, the benefits of the wellness program will also increase over time.

Typical programs require a modest initial expense and continuing investment over the life of the program. This continuing investment will increase at approximately the Consumer Price Index (CPI) rate. This contrasts with health care costs that have historically increased at a rate of two to three times that of the CPI.

Living Well delivers a starting point that fits every organization, a starting point which is sufficiently flexible to allow for evolution as lessons learned are applied.

Living Well at Work

To address the rising cost of health care coverage, IBM created a systemized prevention and wellness program. IBM's Living Well program draws from a wealth of practical experiences in the public and private sectors. However, every solution for every organization will be different in implementation. Location of the office, age of the workforce, and the type of work will vary from business to business and even by division within a corporation. What Living Well does is deliver a starting point that fits every organization, a starting point which is sufficiently flexible to allow for evolution as lessons learned are applied. Every Living Well program must be a living and evolving program if it is to succeed.

The Program

The challenges for employers are to provide effective and efficient health and wellness programs as health care costs rise well in excess of profits, wages, and general inflation each year in the U.S. while meeting a social responsibility to provide care for their employees.

The exact emphasis of the implementation strategy will vary from organization to organization depending on the nature of the workforce, however, some components will

cross industry and geographic boundaries. For example, in 2003, Pfizer partnered with the State of Florida to implement a wellness and prevention program aimed at 150,000 recipients of Medicaid. Over the first two years, the program saved the state $60 million in health care costs and delivered some significant lessons learned which Pfizer is now applying to its own organization. The components of an effective prevention strategy that Pfizer has identified broadly match those applied by other companies with wellness and prevention programs. Those components include:

- A supportive environment
- Data collection
- Benchmarking
- Benefits design
- Incentives
- Understanding the true cost burden (direct and indirect) of employee health
- Opportunities for confidential health risk assessment
- Support for maintaining good health practices and avoiding risk migration through primary prevention initiatives
- Opportunities for interventions tailored to employee needs
- Support and reinforcement for personal responsibility regarding health decisions
- Collaboration with key stakeholders
- Health purchase decisions based on value rather than strictly on cost
- Disease management emphasizing evidence-based medicine and defined outcomes.[8]

Within this overall strategic framework, there must be a strong health benefits strategy which should include: emphasis on prevention and primary care, health system reform, healthy lifestyles, and applying information technology in ways that enable employees to be informed, engaged partners in health care. The strategic framework should include the following:

a. **A Champion**. Leadership by example is the first and most important step. The Living Well plan needs a champion at the very top of any organization. Without that example to follow, employees will feel unsupported and unwilling to engage. It is striking that all the most successful wellness and prevention programs have either the CEO or the Chairman of the company as the visible evangelist. Visibility and message are critical components to convince stakeholders inside and outside the organization that support comes from the very top.

b. **Annual Risk Assessment**. This prioritizes the following options for wellness objectives:

   - Adopt physically active lifestyle
   - Achieve and maintain healthy weight
   - Establish and maintain good nutrition
   - Become and stay smoke-free
   - Actively manage stress
   - Receive recommended clinical preventive services

c. **Interventions and Incentives**. By taking certain actions or offering "interventions," employers can reduce health risks by encouraging employees to discontinue unhealthy habits, while helping low-risk employees maintain their status. Simply offering isolated wellness resources that employees use voluntarily is not enough to stimulate significant behavior change. By using the company intranet and Internet, the enterprise is able to offer a comprehensive set of health and wellness programs tailored to individual employees. Employees must feel that the program is for them, which requires a high degree of tailoring (this program for the overweight, that program for the smoker, etc.).

   With prevention the goal of all efforts, participation increases dramatically when monetary rebates are offered. This, coupled with the selection of effective technology tools, allows for maximum reach to the workforce, while contributing to the success of the health and wellness programs and their preventive health effect.

d. **Health Management Center (HMC)**. An HMC ensures consistency in program access and delivery. The HMC communicates key health promotion messages, and captures data for evaluating outcomes. This coordinated approach provides resources, tools, and information on well-being services to help direct employees in creating an appropriate course of action to address their individual health risks. The HMC will incorporate the following best practice components:

   - Integrated web-based platform
   - Best-of-breed risk-reduction tools
   - Behavior change focus
   - Pervasive messaging
   - Strategic incentives
   - Health benefits integration
   - Environmental and policy support
   - Population analysis and impact evaluation

e. **Personal Program**. All participants must feel that they are getting what they need and want. This requires a comprehensive and integrated program delivery approach that provides the following:

- Health Assessments (Preventive Care Rebate, HRA, On-site Screening and Coaching, health plan coverage for preventive screening and clinical services)
- Smoking Cessation (interactive online cessation program, self-directed cessation kit, telephone coaching, benefits coverage for tobacco cessation medications)
- Physical Activity (Healthy Living Rebate for physical activity via a Virtual Fitness Center, site-based fitness centers at select locations, flex schedules for most employees)
- Weight Management (rebates for nutrition and weight management, Weight Watchers at Work classes at select locations, healthy food options offered at office cafeteria, self-directed kit and telephone coaching, benefits coverage for obesity drugs, and nutritional counseling)
- Stress Management through online stress measurement and mediation
- Immunization (on-site immunization for influenza and tetanus, off-site immunization via retail pharmacies in communities throughout the U.S.)
- Preventive Clinical Care (enhanced benefit coverage for preventive screening and immunization).

f. **Communication** of all aspects of the program to all employees in an enterprise is vital. The strategy should include the following components:

- Level 1 – Identifies and brands the particular sponsoring organization and associated program partners and is used for the initial promotion to attract the intended audience and create a highly recognizable wellness program.
- Level 2 – Provides a general overview of program offerings (e.g., posters, postcards, and tag lines).
- Level 3 – Educates employees on what is available through program features which will support them in goal achievement (e.g., invitation emails and program announcements).
- Level 4 – Reinforces the benefits of program utilization with supportive communications, and is more program-specific and intended for a more targeted audience (e.g., program emails, web site messaging, and progress reports).

Multiple delivery mechanisms lead to maximum population impact:

- **Online**: Strategic web-based offerings provide flexible, cost-effective options for mass employee involvement. IBM utilizes both the Internet and intranet to give employees access to health and wellness programs without having to leave their office or home. Message boards and forums keep participants connected through an online community, which provides an aspect of social support and encouragement. Experts are also leveraged to offer guidance and give recommendations. The reach of specific tools has been maximized by integrating them into an easily accessible, interactive web-based portal where all wellness program offerings are maintained in one location.

- **Email**: A central means of communication in such a high-technology, dispersed work environment is, of course, email. High priority messages can be disseminated broadly or targeted to specific groups, as appropriate. At the same time, with employees conducting business via email, much care is taken to use email strategically and not abuse access to this channel. The objective is to ensure employees receive only beneficial information, in the appropriate volume, so as to not train the population to ignore messages regarding health and wellness.

- **Telephone**: Telephone-based programming allows for more intensive interaction with wellness professionals and tailored intervention based on individual progress. IBM's telephone coaching programs for weight management, general health improvement, physical activity, and smoking cessation apply a self-discovery process, allowing participants to explore their health issues and create their own solutions. This methodology has been shown to elicit longer lasting behavioral changes.

- **At Home**: Many employees prefer to address their well-being needs through more traditional hard-copy materials. High quality self-directed kits are available to employees for smoking cessation, weight management, and cholesterol measurement.

- **On-site**: Programs for screening, weight management, physical activity, and stress management at on-site locations give employees the ability to manage their well-being without the constraints of arranging appointments, travel, extra expense, and other hindrances.

- **External Media**: This permits innovative ideas and concepts to gain exposure to the enterprise's population. It not only makes employees proud, but also reinforces the program and fosters widespread recognition.

- **Health Plans**: Health care plans will offer lifestyle improvement interventions to spouses, domestic partners, and other dependents. Additional messaging revolves around enhanced coverage for clinical preventive services, access to lifestyle medications for smoking cessation and obesity, and on-site fitness centers and family activities.

g. **Evaluations and Innovations** are vital tools that allow the enterprise to learn from the past and continually tailor the Living Well program to future needs.

The Living Well program proposes a set of standards for all participants and a certification process to validate performance.

Program Standards

One of the many challenges in designing the Living Well plan was the lack of overall standards for the implementation of any wellness and prevention program. There are dozens of programs at many companies and organizations, but none of them are the same. Equally, performance measurement is applied differently from company to company and from sector to sector. This has made it hard for employers to justify the investment in wellness programs and then having made the investment, to measure success. Such chaos in a multi-trillion dollar industry is no longer acceptable.

The Living Well program proposes a set of standards for all participants and a certification process to validate performance. We envisage compliance being simple and performance easy to measure for everyone involved. There will also be real advantages for everyone involved. Standards will produce a common performance standard and a certification process will allow everyone engaged in the health care business – insurer, supplier, patient and provider – to have transparency. Over time, certification should be an incentive for companies to strive for program quality and thereby reduce health care costs.

There are six simple standards, which all participants will be expected to meet:

1. Eighty percent of all employees must participate.

2. Behaviors must be observed to change over time. This will be measured by risk reduction year on year with a minimum 1% reduction each year.

3. Quarterly evaluations of controlled risk measurements such as whether changes in eating habits contribute to weight reduction.

4. Clinical prevention must include measurement of cholesterol and blood pressure, as well as immunization availability.

5. Primary care provision of health services will be fully integrated into the program. Success will be measured by alignment to specific activities related to cause management (50% of primary care providers participating in year 1, 75% year 2, and 100% year 3).

6. The payers' payment process must be fully aligned with the specific components of the prevention and wellness plan (50% of payers' processes in year 1, 75% year 2, and 100% year 3).

There may be resistance from insurers and physicians for such a process. However, market forces will be a powerful driver. Large employers carry considerable economic muscle and can apply their leverage to achieve the outcomes they wish. If some doctors choose not to engage with the Living Well plan, there are others who will. If insurers prefer to pay for disease management rather than rewarding an effective wellness and prevention strategy, then they risk losing billions of dollars in premiums.

The CDC can administer a certification program to support the market forces and provide clear branding to those employers who are successful participants in the Living Well plan. Certification can be given to vendors, employers, physicians and payers. To each participant – from the patient on up the value chain – certification by the CDC will be a stamp of approval that this group or organization has embraced wellness and prevention as a key strategy. As adoption of the Living Well plan grows, certification can be a requirement for doing business in the health care arena.

The Technology Infrastructure

According to the Department of Health and Human Services, "evidence that use of secure, standards-based, electronic health records can improve patient care and increase administrative efficiency is overwhelming. This use of interoperable health information technology (IT) will benefit individuals and the health-care system as a whole in profound ways.

Benefits to the health-care consumer include higher quality care, reduction in medical errors, fewer duplicate treatments and tests, decrease in paperwork, lower health-care costs, constant access to health information and expansion of access to affordable care through interactions with health care providers.

The benefits to public health include early detection of infectious disease outbreaks around the country, improved tracking of chronic disease management, the ability to gather de-identified data for research purposes and evaluation of health care based on value, enabled by the collection of price and quality information that can be compared."

In 2004, President Bush called for most Americans to have access to an interoperable electronic health record by 2014. So far, an aggregate solution has proved elusive while costs have continued to rise and doctors and patients remain at the mercy of a complex, time-consuming and very expensive process. There are many challenges around the issue including privacy of medical records, the need for different databases to communicate across a complex infrastructure that has no common standards, and the quest for a magic bullet that will solve all problems.

This approach to a very complex problem will begin the rethinking and the reallocation of resources that will result in a transformed health care system in the U.S.

A Call to Action

At every level of America's health care system, there is agreement that the process is broken, the costs are too high and the level of patient care too low. At the same time, the number of those uninsured grows every year while the costs of health care to the consumer rise at more than twice the rate of inflation.

There is an urgent need for thought leadership that will drive real, affordable solutions that will benefit patients and physicians. These solutions must deliver better quality health care while managing costs and minimizing paperwork. IBM — a thought leader in the public and private sectors — believes that the only answer is to create a paradigm shift in the way America views health care.

Today, 97% of the $2 trillion spent each year on health care is spent on disease management. IBM believes that resources must be shifted dramatically towards keeping people well and preventing disease. That is why the Living Well program has been developed.

Living Well strengthens the three pillars that form the health care model: the physician-patient relationship, the wellness model itself, and the technology that links everything together. This holistic approach to a very complex problem will begin the rethinking and the reallocation of resources that will result in a transformed health care system in the U.S.

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About the Authors

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Mr. Romeo leads the IBM Federal Health Care practice. In this role he is responsible for the IBM Services business relationship with the Department of Health and Human Services, Department of Veterans Affairs, and Social Security Administration. He is also responsible for overseeing IBM strategic efforts in implementing health care connectivity solutions in State and RHIO initiatives.

Previously, Mr. Romeo was the IBM worldwide Director for Customer Relationship Management (CRM) solutions for the Insurance Industry. He was responsible for the management and sales of a set of solutions that were integrated into an offering that improves a company's ability to increase revenue and profit through enhanced customer loyalty.

Prior to his work in CRM he served in a lead role on an international team in Brussels, Belgium. The team developed an enterprise business model for insurance companies. He has also lead efforts to apply technology solutions from data warehouses to software applications in numerous large companies and government agencies.

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