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Addressing the Growing Economic Burden of Disease

Current Situation

The rising incidence of noncommunicable diseases such as cancer, diabetes, Alzheimer's and cardiovascular disease, more than ever before, is an increasing economic burden and a cause of lower national productivity. This problem is gaining in severity around the world and the necessity and urgency of initiatives for prevention of the crisis are highly-publicized. The Global Status Report on Noncommunicable Diseases 2010, issued by the World Health Organization (WHO), estimates that each 10 percent rise in noncommunicable diseases is associated with a 0.5 percent lower rate of annual global economic growth.¹ The World Economic Forum (WEF) rates noncommunicable diseases as one of the top three risks to the global economy, and forecasts that the rising prevalence of noncommunicable diseases will cost the global economy a total of USD47 trillion over the next 20 years.² The Milken Institute estimates that the combined treatment costs, lost productivity, and lost workdays due to chronic disease have cost the U.S. economy USD1.3 trillion annually, including USD1.1 trillion in lost productivity and USD277 billion in medical treatment costs.³ Similarly, data from the American Productivity Audit shows that health-related lost productive time for personal and family health reasons cost U.S. employers USD225.8 billion per year (USD1,685 per employee per year) in 2002, of which 70 percent was explained by reduced employee performance at work.⁴ As shown by various epidemiological data and survey results, the incidence of diseases skyrockets in aging populations and the associated costs can be crippling. Because of rising healthcare costs and declining economic output, societies that are both old and unhealthy are at risk of fiscal unsustainability.

On the other hand, the good news is that the WHO report also estimated that every one year increase in life expectancy is linked to a 4.3 percent increase in GDP. Economically

healthy societies need populations who can remain productive and active well into their senior years. The prolongation of healthy and productive life is important for sustaining economic output and consumption, as well as for keeping healthcare costs under control.

The Economic Burden of Disease in Japan

Japan has successfully implemented one of the world's most advanced universal healthcare systems and has achieved world leadership in both male and female life expectancy. But many of the trends observed in Japan are the same as in many other industrialized, mature economies in terms of the economic burden caused by disease. A nationwide survey of 5,000 Japanese adults conducted by the ACCJ Healthcare Committee in November 2011 shows that health problems cost the Japanese economy at least JPY3.3 trillion a year by causing greater absenteeism, greater disability, and lower worker productivity.⁵ Of this, JPY2 trillion is due to health problems that workers experience themselves, and JPY1.3 trillion is due to health problems of workers' family members. As outlined in that document and the economic analysis on which it was based, raising productivity is the key to maintaining economic growth in a Japan that faces a super aging society because the nation already has ample capital resources, but faces a shrinking population. Hence, the only input factor Japan has left to utilize is productivity. Japan also faces two daunting challenges in this regard: (a) labor productivity is still at less than 60 percent of the U.S. level; and (b) labor productivity is even lower, and is growing more slowly, in the services sector. Services, however, now account for 80 percent of Japan's GDP, a percentage that is still growing. Hence, increasing labor productivity, especially in the services sector, is tremendously important for Japan's economic vitality. Improving the health of workers and, thus, boosting labor productivity, is essential to expanding the Japanese economy and increasing its international competitiveness.

The Impact of Health on Economic Productivity

The WHO defines “health” as the physical condition that is completely mentally and socially good. According to a public awareness survey conducted by the Ministry of Health, Labour and Welfare (MHLW), respondents view being healthy as “no illness” (63.8 percent), “enjoy eating” (40.6 percent) and “good physical condition” (40.3 percent).⁶ Improved health could contribute to an increase in economic output and productivity in Japan in many ways. As fewer workers take extended periods of time off from work and more choose to delay retirement, the expected consequences would be an increase in people’s sense of participation in society, greater consumption, and more workers able to perform their best while at work. A further economic boost could come indirectly from decreasing the burden of care on family members and by avoiding an increase in the burden of healthcare costs. According to U.S. data from the Institute for Health and Productivity Management (IHPM), the cost of presenteeism (low work productivity because of illness such as allergies, pain, depression, diabetes or migraines) is often more than double the cost of worker absenteeism and medical care.⁷ Most studies suggest that every one dollar spent on wellness and prevention results in a return on investment (ROI) of roughly three dollars in terms of improved health outcomes, higher productivity, and healthcare savings.^{8,9,10} Thus, in order to build a healthy society and economy, it is extremely important to take proactive actions to maintain people’s health. Earlier initiation of effective treatment and disease management to inhibit further development and recurrence of existing disease are as equally important as primary preventive care. In fact, the “Healthy Japan 21 (Second Version),” revised in June 2012, incorporated a new target focused on tertiary prevention, such as taking preventive measures for chronic diseases like diabetes, in addition to primary and secondary prevention.¹¹ This indicates that healthy life is attainable even for

people suffering from an illness if they receive appropriate treatment and manage their disease and, as a result, can reduce the economic burden of illness. The Pharmaceutical Research and Manufacturers of America (PhRMA) reported that 176 medicines introduced in the past five years have substantially improved people’s quality of life and contributed to generating significant financial and economic benefits through more efficient use of medical resources, cost savings, and more productive workers, thanks to lower absenteeism and disability.¹² Furthermore, according to the PhRMA study, the use of innovative or best-in-class drugs for the treatment of five major diseases demonstrated a value of 1,300 – 1,500 billion yen, by reducing the total treatment costs and improving productivity of patients, which represents 16 percent of the total medical spending in these disease areas.¹²

Current Policy

In addition to the “Healthy Japan 21 (Second Version),” health policies have been implemented to increase the healthy lifespan. One of these policies is called the “Japan Revitalization Strategy,” which focuses on enhancement of healthy longevity as the part of the Strategic Plan for Market Creation. This strategy set the goal to achieve a longer healthy lifespan for Japanese people by 2030 by providing higher quality healthcare and home nursing services.¹³ The Health and Medical Care Strategy, which is to be promoted in association with the Japan Revitalization Strategy, requested that the government achieve the world’s most advanced health technology and services in Japan, which is facing the world’s fastest super aging society. The Strategy simultaneously calls for disseminating the best practices of Japan widely around the world as examples of how a developed country is successfully addressing these challenging issues by growing the healthcare industry as a driver of economic growth. While the Japanese government currently has in place a variety

of immunization, early detection, awareness campaigns and various economic support policies, more could be done that would result in significant gains in quality of life, workforce productivity, and cost efficiency. It is important to create financial incentives in the health insurance system to motivate more people to undergo health risk assessments, as well as to adopt healthier lifestyles and behaviors long before the onset of illness, when the risk of disease can be more easily reduced. In parallel, it is important to shift the health insurance reimbursement model to one in which healthcare practitioners earn more through outcomes based on keeping patients healthy and thus out of doctors' offices and hospitals, than by treating patients after they develop chronic diseases. One way to accomplish this is to provide general practitioners with higher reimbursement to promote prevention and early detection in their clinics. This would help keep more patients out of expensive acute-care hospitals. To achieve this vision, the government should not only focus on containment of healthcare expenditures, which could result in reduced patient access to advanced health technology, but on proactive allocation of resources for initiatives to prevent patients from

getting serious illnesses or having recurrences and to promote preventive care from the mid- and long-term perspective. Through the implementation of a comprehensive set of new national policies and programs focused on prevention, early detection, and prevention of disease progression, the government of Japan can facilitate improvements in health outcomes and patient quality of life. This can help optimize long-term healthcare cost efficiency and boost the productivity of the workforce.

Recommendations

- Focus strategic health policies on increasing labor productivity (such as reducing absenteeism and disability) and not just on decreasing mortality rates and healthcare costs.
- Create effective incentives in the health insurance system to motivate more people to undergo health assessments or treatment of disease.
- In order to maintain labor productivity, allocate healthcare budget and resources for tertiary preventive care, such as preventing the deterioration or recurrence of illness, in addition to primary and secondary preventive care.

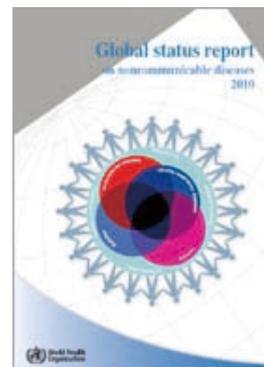
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2. "The Global Economic Burden of Noncommunicable Diseases," a report by the World Economic Forum and the Harvard School of Public Health, September 2011. www.weforum.org/docs/WEF_Harvard_HE_GlobalEconomicBurdenNonCommunicableDiseases_2011.pdf. For supporting background data, also see "Working Towards Wellness: The Business Rationale." Geneva, World Economic Forum, 2008.
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7. Presentation to the ACCJ by Sean Sullivan, President and CEO, Institute for Health and Productivity Management, November 2009 and based on various articles in the Journal of Health & Productivity. www.ihpm.org/.
8. American Institute for Preventive Medicine website section on corporate wellness programs (www.healthylife.com). Documented cases of ROI of as high as 15 times investment have been seen.
9. For example, benchmarking against companies in similar industries shows that Johnson & Johnson's Health & Wellness program had a projected ROI of USD3.71 for every USD1.00 spent (Calculated using the Thomson Reuters ROI Modeling Tool). Johnson & Johnson in the United States had an average rate of growth in employee medical and pharmaceutical costs that was 3.7 percent lower than that of similar companies in similar industries. Leonard L. Berry, Ann M. Mirabito, William B. Baun. "The Pillars of an Effective Workplace Wellness Program." Harvard Business Review. December 1, 2010.
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12. The Value of Innovative Medicine in Japan, PhRMA (Pharmaceutical Research and Manufacturers of America), April 12, 2013
13. Japan Revitalization Strategy, Cabinet Secretariat, approved in June 2013, http://japan.kantei.go.jp/96_abe/documents/2013/index.html
14. Healthcare and Medical Strategy, Cabinet Secretariat, approved in July 2014

1. The Rise in NCDs Is a Leading Threat to Global Economic Growth

WHO report: each 10% rise in NCDs is linked to a 0.5% dip in annual economic growth; recent global rise in NCDs is “economically unsustainable.”



The World Economic Forum forecasts that NCDs will cost the global economy \$47 trillion over the next 20 years.

- Stuckler D. “Population causes & consequences of leading chronic diseases: a comparative analysis of prevailing explanations.” *Milbank Quarterly*, 2008, 86:273–326. Reported in *Global Status Report on Noncommunicable Diseases 2010*,” WHO, http://www.who.int/nmh/publications/ncd_report2010/en/
- *Working Towards Wellness: The Business Rationale*. World Economic Forum, Geneva, 2008. Bloom, et al., 2011.

1. Economic Burden of Disease in Japan Is about ¥3.36 Trillion per Year

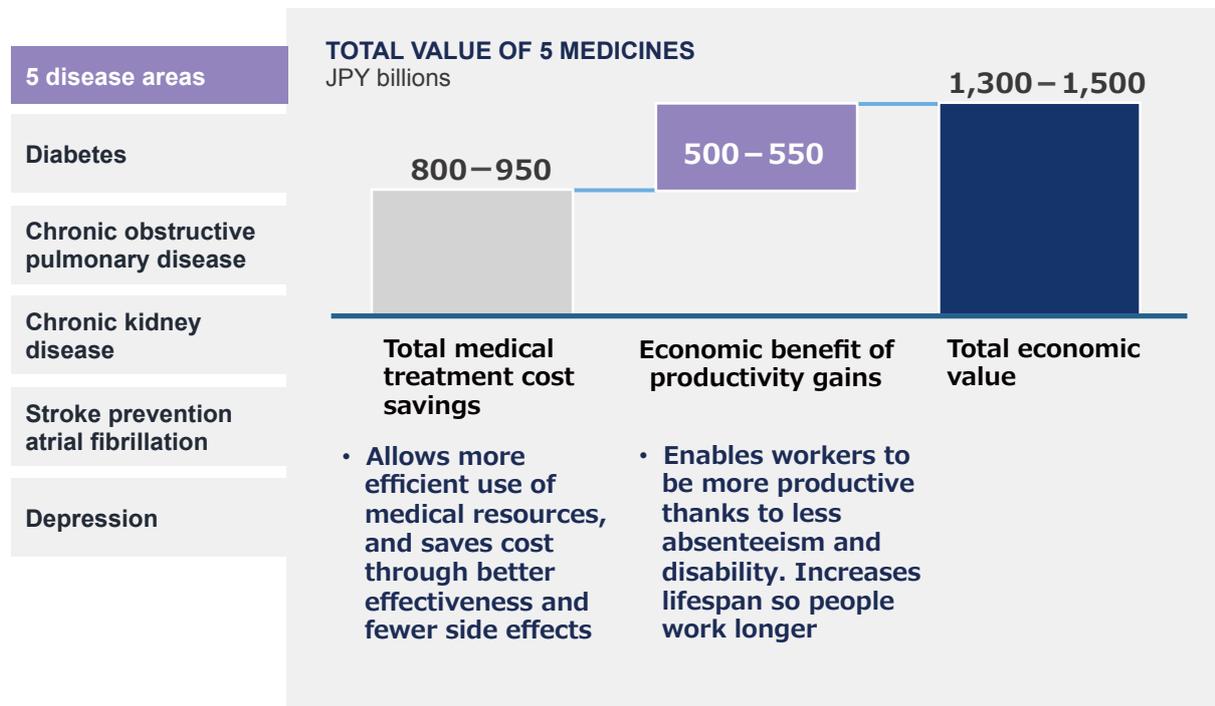
Cost Type	Loss Due to Absenteeism (¥)	Loss Due to Presenteeism (¥)	Loss Due to Partial Disability (¥)	Loss Due to Full Disability (¥)	Total Economic Loss (¥)
Due to own health problem	360,902,760	281,746,880	893,861,040	466,162,160	2,002,672,840
Due to family health problem	154,775,080	190,952,840	396,201,720	618,093,560	1,360,023,200

**Health Issues Undermine Work Ability of 16 Million Japanese Every Year;
Family Member Health Issues Undermine Work of 10 Million Every Year**

Cost Type	Estimated Absenteeism (People)	Estimated Presenteeism (People)	Estimated Partial Disability (People)	Estimated Full Disability (People)	Total Economic Loss (People)
Due to own health problem	7,970,576	3,880,412	1,887,768	3,670,66	16,192,854
Due to family health problem	3,880,412	3,251,156	943,884	2,936,52	10,445,650

Source: “National Survey on Prevention, Early Detection and the Economic Burden of Disease in Japan,” American Chamber of Commerce in Japan, 2011. Estimates based on Projected Population from Japan’s Ministry of Internal Affairs and Communications (104,876,000 adults as of November 2011). Some respondents were impacted by both their own health problems and family member health problems.

1. Selected 5 best-in-class medicines where Japanese data are available and quantified their financial and economic benefits



Source: The value of Innovative Medicine in Japan, PhRMA, APRIL 12, 2013

1. Spending to Promote Health Is a Very Good Economic Investment

- The WHO says that every one year increase in life expectancy is linked to a 4.3% increase in global GDP.
- A Harvard-led analysis of 36 studies found that medical costs fall about \$3.27 and that absenteeism costs fall about \$2.73 for every \$1 companies spend on employee wellness programs.

Sources: Stuckler D. "Population causes & consequences of leading chronic diseases: a comparative analysis of prevailing explanations." *Milbank Quarterly*, 2008, 86:273–326. Reported in *Global Status Report on Noncommunicable Diseases 2010*, WHO, http://www.who.int/nmh/publications/ncd_report2010/en/.
 Harvard-led analysis: Katherine Baicker, David Cutler, & Zirui Song, *Health Affairs*, February 2010, vol. 29 no. 2 304–311, <http://content.healthaffairs.org/content/29/2/304.abstract>.