





Second International Forum 2014, Tokyo

Health and Healthcare

at the Crossroads of Business and Society

WHITE PAPER

"He who has health has hope; and he who has hope has everything." Arab proverb

Mission Statement

The Council on Business & Society

A Global Alliance of Schools of Management

Values

The challenges are many: businesses, societies, and the entire global community are all today confronted with unprecedented change. A worldwide economic shift from West to East, periodically re-occurring financial crises, the rapid proliferation of and advances in information technology, increasing communication across frontiers, a growing scrutiny of businesses and their ethical and environmental records: these and other changes present many risks, but also great opportunities. Within this context, six of the world's leading business schools – **ESSEC Business School** in France, the **Keio Business School** in Japan, the **School of Management at Fudan University** in China, the **Tuck School of Business at Dartmouth** in the U.S., the **University of Mannheim, Business School** in Germany, and **FGV-EAESP** in Brazil – have come together under a shared commitment and belief in the power of academic excellence, global outlook, innovation, business excellence, social responsibility, humanism, and transformational leadership to form the Council on Business & Society.

Mission

The Council's mission is to create a multi-school process to study critical issues facing business and society, organize international forums for mutual dialogue, and develop and disseminate educational materials and insights designed to foster continuing debate on these issues. The Council on Business & Society held its first Forum in Paris in November 2012 with the theme "**Corporate Governance and Leadership**." The second Forum took place in Japan in March 2014 under the theme "**Health and Healthcare**." The next Forum, to be held in the U.S. in the fall of 2015, will center on energy and environment.



COPYRIGHT

Health and Healthcare at the Crossroads of Business and Society

ISBN: 978-2-36456-110-6

The information and contents of this White paper are the property of the Council on Business & Society and may not be reproduced, copied, edited or used without the prior agreement of the former.

Produced by ESSEC Publishing for the Council on Business & Society.

©2014 Council on Business & Society



TABLE OF CONTENTS

Council on Business & Society – Mission Statement	1
Table of Contents and links	2
Acknowledgements, Speakers, and Contributors	3-6
The Council on Business & Society Statement of Purpose	7
The Council on Business & Society Position	8
Executive Summary	9-10
Student Survey	11
PART 1: Healthy Employees, Healthy Corporations	12
Business and Society at the Crossroads – Why is Corporate Health Management So Important?	12-13
Healthcare and Healthcare Programs – Are They Important for Corporations?	14-15
Employee Health as a Strategic Imperative	16-17
Implementing a Strategy for Health	18-19
Psycho-Social Risks in the Workplace: Does Management Care?	19-21
A Cultural Perspective: The Japanese Employee and the Business and Society Dimension	21-22
PART 2: Technology and Management Innovations in Healthcare	23
Using Technology to Cost-effectively Deliver Better Outcomes and the Best Patient Experience	23-24
Technology and Management Innovations: The Focus on End-users, Outcomes, and Awareness	24-26
Innovative Technology Applications in Healthcare	26-27
Business Model Innovations in Healthcare	27-28
Management Innovations in Healthcare	28-30
A Cultural Perspective: Changes in Global Healthcare Environments and Chugai's Strategy	30-31
PART 3: Challenges in Managing Healthcare: Who Pays for Healthcare and How is it Supplied?	32
Can Health Continue to Grow as a Share of the Economy Without Undermining Fiscal Stability?	32-33
Challenges in Managing Healthcare: Who Pays for it and How is it Supplied?	33-34
Stakeholder Roles: All Power to the Patients?	35
Productivity and Cost: What Do We Pay For and Invest In?	36-37
What Does a Better Healthcare System Look Like?	37-39
A Cultural Perspective: Japan at the Forefront of Hyper-ageing Societies	39-40
Conclusions	41-42
Specific conclusions from the three parts	42-43
Final considerations	43-46
Links	46
Board of Deans	47
Contacts	48

Links:

Speaker Biographies

Council on Business & Society and Supporting Faculty Biographies

Forum Event Program

Forum 2014 Photographs

CONTACT US





Acknowledgements

White paper author: Professor Edward Yagi, Nanzan University Graduate School of Business Administration

KNOWLEDGE PARTNERS

McKinsey&Company

McKinsey & Company is an international management consulting firm that helps leading corporations and organizations make distinctive, lasting and substantial improvements in their performance. Over the past eight decades, the firm's primary objective has remained constant: to serve as an organization's most trusted external advisor on critical issues facing senior management. With about 8,000 consultants deployed from over 90 offices in more than 50 countries, McKinsey advises companies on strategic, operational, organizational and technological issues. McKinsey & Company is an official knowledge partner of the Council.



The mission of the **Organisation for Economic Co-operation and Development (OECD)** is to promote policies that will improve the economic and social well-being of people around the world. The OECD provides a forum in which governments can work together to share experiences and seek solutions to common problems. The OECD Forum 2014, entitled Resilient Economies for Inclusive Societies, will be organised around three cross-cutting themes: Inclusive Growth, Quality Jobs, and Trust, exploring the multifaceted nature of resilience and how to now "bounce forward" in addressing economic, social, and environmental challenges. There are several encouraging signs that the recovery is gaining some steam, but the global economy remains in low gear compared to the pre-crisis period. Building on last years' discussions, OECD Forum 2014 will offer an opportunity to reflect further on what governments, international organisations and the various OECD stakeholders must do to help develop more resilient economies and societies. The OECD is an official knowledge partner of the Council.

SPONSORS



Chugai Pharmaceutical is one of Japan's leading research-based pharmaceutical companies with strengths in biotechnology products. Based in Tokyo, Chugai specializes in prescription pharmaceuticals and is listed on the 1st section of the Tokyo Stock Exchange. As an important member of the Roche Group, Chugai is actively involved in R&D activities in Japan and abroad—working to develop innovative products to satisfy unmet medical needs, mainly in the area the oncology. In Japan, Chugai's research facilities are collaborating to develop new pharmaceuticals and conducting research for technology development for industrial production.



As a market leader in enterprise application software, **SAP** helps companies of all sizes and industries run better. From back office to boardroom, warehouse to storefront, desktop to mobile device – SAP empowers people and organizations to work together more efficiently and use business insight more effectively to stay ahead of the competition. SAP applications and services enable more than 195,000 customers to operate profitably, adapt continuously, and grow sustainably.



Taisho Pharmaceutical: With its management philosophy to "contribute to society by creating and offering superior pharmaceuticals and health-related products, as well as healthcare-related information and services in socially responsible ways, that enrich people's lives by improving health and beauty," Taisho Pharmaceutical has made continuous efforts to meet customers' expectations for close to a century since its foundation in 1912. The firm helps consumers realize a richer life through a comprehensive range of products covering both prevention and treatment. Multiple new drug candidates under development, focusing on new drug development to contribute to society.

Wilhelm Müller Foundation **Wilhelm Müller-Foundation:** The entrepreneur Wilhelm Müller and his wife Ruth acquired one of the first licenses for filling Coca Cola bottles in Germany in the early thirties of the twentieth century. The company gradually developed into one of the most significant beverage wholesale businesses in Southwest Germany. This marked the meaningful starting point that lead to the establishment of the Wilhelm Müller-Foundation in 1983, which is now one of the most renowned foundations in the Rhine-Neckar Metropolitan region.

MEDIA PARTNER



Nikkei Inc. is one of the world's leading providers of business and financial news. Since its establishment in 1876, Nikkei has been offering timely, accurate news and authoritative opinions on business, finance, politics, science and technology, and other issues. Based in Tokyo, Nikkei has a network of 36 bureaus around the world with over 3,000 employees. Its flagship Japanese paper, The Nikkei, has a combined paid and digital circulation of more than 3 million. Digital subscribers are growing to over 330,000 as of January 2014. In November 2013, Nikkei released a new English language publication, Nikkei Asian Review, which is available online, mobile and print. Nikkei Asian Review aims to offer business insights from Asia to readers around the world.

SPEAKERS and CONTRIBUTORS

Dr. Hideyuki Ban, Hitachi Corporation	Ms. Yuki Murakami, Health Economist & Policy Analyst, OECD	
Dr. Axel Baur, Senior Partner, McKinsey and Company Tokyo Office	Professor Atsuomi Obayashi, Keio Business School	
Dr. Suleika Bort, University of Mannheim, Business School	Mr. Osamu Nagayama, Chairman & CEO, Chugai Pharmaceutical Co., Ltd.	
Professor Annick Ancelin-Bourguignon, ESSEC Business School	Professor Hiroshi Nakamura, Keio Business School	
Mr. Martin Burger, Senior Industry Advisor Healthcare, SAP	Dr. Alberto Jose Ogata, President, Brazilian Quality of Life Association	
Professor Wen Chen, School of Public Health, Fudan University	Mr. Genki Oka, Partner, McKinsey and Company Tokyo Office	
	Professor Gérard de Pouvourville, ESSEC Business School	
Professor Yingyao Chen, School of Public Health, Fudan	Professor Martin Pohl, University of Tsukuba	
University Dean Paul Danos, Tuck School of Business, Dartmouth College	Professor Atsushi Seike, President, Keio University	
	Professor Jonathan Skinner, Dartmouth College	
Mr. Takeshi Erikawa, Former Vice-Minister, Japanese Ministry of Health, Labor and Welfare	Mr. Eisuke Suzuki, CEO, Medical Insight Company	
Mr. Hiroto Furuhashi, Associate Principal, McKinsey and	Professor Shigeru Tanaka, Keio Business School	
Company Tokyo Office	Professor Elizabeth Teisberg, Geisel School of Medicine, Dartmouth College	
Dr. Eishu Hai, CEO, Medixfirm Co., Ltd	Professor Scott Wallace, Geisel School of Medicine, Dartmouth College	
Professor Robert Hansen, Tuck School of Business, Dartmouth College		
Professor Bernd Helmig, University of Mannheim, Business School	Professor Naotaka Watanabe, Keio Business School	
	Professor Michael Woywode, University of Mannheim, Business School	
Mr. Mitsuru Kikuchi, Chugai Pharmaceutical Co., Ltd.	Professor Yunjie Xu, School of Management, Fudan University	
Dean Hirokazu Kono, Keio Business School	Dr. Jianwei Xuan, Adjunct Professor, School of Public Health, Fudan University, China.	
Ms. Betsabeh Madani, Corporate Business Strategist, Cerner Corporation		
Professor Ana Malik, FGV-EAESP	Professor Adrian Zicari, ESSEC Business School	
Mr. Geoff McDonald, Global Vice President Human Resource for Talent, Marketing, Communications, Sustainability & Water, Unilever Corporation		



THE ACADEMIC COMMITTEE for the Second International Forum

Professor Atsuomi Obayashi, Head of the Academic Committee, Keio Business School Professor Robert Hansen, Tuck School of Business, Dartmouth College Professor Bernd Helmig, University of Mannheim, Business School Professor Ana Malik, Fundação Getulio Vargas, Escola de Administração de Empresas de São Paulo (FGV-EAESP) Professor Gérard de Pouvourville, ESSEC Business School Professor Yunjie Xu, School of Management, Fudan University

DEANS' REPRESENTATIVES of the Council on Business & Society

- Dr. Gérard Guibilato, ESSEC Business School
- Professor Dr. Julia Von Maltzan Pacheco, Fundação Getulio Vargas (FGV-EAESP)
- Mr. Koji Yamaki, Keio Business School
- Ms. Kaoru Kono, Keio Business School
- Mr. Christopher McHale, Keio Business School
- Ms. June Huang, School of Management, Fudan University
- Ms. Stephanie Xu, School of Management, Fudan University
- Ms. Penny Paquette, Tuck School of Business at Dartmouth
- Dr. Ingo Bayer, University of Mannheim, Business School
- Ms. Tatiana Briamonte Geiser, University of Mannheim, Business School

THE EXECUTIVE TEAM of the Council on Business & Society

Professor Christian Koenig

Executive Director, Council on Business & Society; Associate Dean for Strategic Partnerships and International Relations, ESSEC Business School

Ms. Tessa Chatagnon

Coordinator, Council on Business & Society; International Projects Coordinator, ESSEC Business School

ESSEC Business School

Avenue B. Hirsch, BP 105 F-95021 Cergy Pontoise Cedex France Tel: + 33 134 433 039 Tel: + 33 134 433 102 Fax: + 33 134 433 300 E-mail: koenig@essec.edu E-mail: chatagnon@essec.edu



COMMUNICATION & PRESS RELATIONS TEAM of the Council on Business & Society

Ms. Danielle Steele, Council Communications Team Coordinator, ESSEC Business School

- Ms. Luisa Maschio, ESSEC Business School
- Ms. Patrícia Perim F. Santos, Fundação Getulio Vargas, FGV-EAESP
- Ms. Risa Motomura, Keio Business School
- Ms. Elsa Huang, School of Management, Fudan University
- Ms. Anne Culp, Tuck School of Business at Dartmouth
- Ms. Liane Weitert, University of Mannheim, Business School
- Ms. Laura Miller, University of Mannheim, Business School

With special thanks to:

Ms. Tessa Chatagnon, Coordinator, Council on Business & Society

Mr. Scott Fletcher, Tuck School of Business at Dartmouth, Web Producer and **councilonbusinessandsociety.com** website manager

Mr. Tom Gamble, White Paper Editing, Layout, and Design

Professor Christian Koenig, Executive Director, Council on Business & Society

Ms. Patricia Palmiotto, Executive Director, Center for Business & Society, Tuck School of Business at Dartmouth, Student Involvement Coordinator

Professor Edward Yagi, 2014 Japan Forum Master of Ceremonies and White Paper author

Mr. Koji Yamaki, Global Alliance Officer, Head of Forum organization, Keio Business School

The students from Tuck and Keio who contributed to the contents of the forum

And finally, to all of the students in our member schools – for your survey participation, your many volunteer efforts, for studying so diligently and for applying what you are learning to benefit business and society.



THE COUNCIL ON BUSINESS & SOCIETY STATEMENT OF PURPOSE

By Dean Hirokazu Kono of Keio Business School, Forum host.

Health and Healthcare: How Can Business Schools Play a Part?

On March 6-7, 2014 the Council on Business & Society organized its second International Forum at the Keio Business School in Tokyo, Japan. The Forum welcomed 250 members, organization representatives, politicians, and students, who came together to discuss issues related to health and healthcare management. These included the major importance of the role of corporations in employee health, the impact of technology and innovation in healthcare, and the challenges that an aging society present to health and healthcare around the world.



The Council aims to find approaches to examine the most pressing societal issues, and in so doing create a bridge between society and business schools that will allow them to work together efficiently to create relevant and sustainable solutions. Focusing exclusively on financial results and performance can lead to important issues related to society being overlooked, such as ecological sustainability, energy management, corporate governance and – healthcare. The Council believes that it is the responsibility of the leading business schools in the world to ensure that future business leaders consider the impact business has on society.

The uniqueness of the Council's Forums lies in the fact that they emphasize dialogue and collaboration between academics, businesspeople, and the public sector to find common approaches to create solutions. Furthermore, the Council and its Forums unite the world's regions, allowing for consideration of diverse points of view. By bringing together and examining respective viewpoints, the Council can propose a global voice with respect to key issues facing the world's present and future.

A number of promising results and insights resulted from this Forum and are presented in this White Paper, which includes an Executive Summary, visual media, key takeaways and participant views. Additional material can be found at:

www.councilonbusinessandsociety.com or councilcommunity.com

The Council on Business & Society's next Forum will be held in the U.S. and hosted by the Tuck School of Business in the fall of 2015 on the theme of energy and environment. I hope to see you there.

Dean Hirokazu Kono, Keio Business School



THE COUNCIL ON BUSINESS & SOCIETY POSITION

Health and Healthcare: at the Crossroads of Business and Society

As a direct result of the Council on Business & Society-sponsored 2014 Forum in Tokyo, this White Paper offers three major principles which the Council firmly believes will enhance and sustain better health and healthcare on a global scale by providing ethical, effective, and beneficial outcomes for all.

These principles are:

- Good employee health is not only an ethical pursuit, but it is also good business as it ensures a motivated and productive workforce. The importance of psychosocial risks and their impact on the productivity of employees are clear, so organizations and managers must find a way to alleviate them.
- Graduate schools of business administration have a key part to play in training responsible managers to put healthcare on a par with corporate governance, financial propriety, and corporate social responsibility. Business schools and their students must be active in proposing and disseminating best practices and solutions in healthcare.
- 3. Multiple stakeholders across the spectrum of business and society must work together to design sustainable solutions for healthcare using flexibility, tailored systems, and cooperation.

The Council on Business & Society welcomes comments on this White Paper and the continued participation of the 2014 Forum guests, speakers, and participants. To comment on this White Paper, report corrections, contact any of the 2014 Forum participants, request copying or reproduction rights, seek additional materials including handouts, slides, presentation materials, audio transcripts, video transcripts; make press inquiries, or for any other matter, please contact any of the Council representatives included at the end of this White Paper. "The doctor of the future will give no medicines, but will interest his patients in the care of the human frame, in diet, and in the causes and prevention of disease."

Thomas Edison

EXECUTIVE SUMMARY

n accordance with its Statement of Purpose, the Council on Business & Society established "Health and Healthcare" as the topic for its second international Forum, which was held in Japan on March 6 and 7, 2014. This Forum examined healthcare across three broad areas: the roles and responsibilities of companies and employees, technology and management innovation, and the business model, or who pays for healthcare and how it is supplied. Many of the world's top experts on these issues gathered to discuss and outline methods to create new systems that will generate optimal results in sustainable ways. The Forum also presented the results of a survey of graduate students of the six institutions in the Council on Business & Society. The purpose of this survey was to discover business school student views on health and healthcare, and the results are summarized in this White Paper below. The full survey – as well as many other materials related to this Forum – is available for viewing online on the Council's website: www.councilonbusinessandsociety.com

Part 1: Healthy employees, healthy organizations

Overwhelming evidence demonstrates that corporations that take a proactive approach to employee health and wellness achieve better financial results, decreased employee turnover, and enhanced employee engagement and performance. Equally characteristic of current systems is the general emphasis given to rewarding overwork and perceiving value mainly in the hands of individual "champions" in the workplace. Such focus on individual results may not only engender critical healthcare issues but also, and paradoxically, reduce overall employee motivation. Management systems must evolve to reassess the health-productivity formula and focus more on the role of teamwork and credit-sharing. Companies and organizations must invest in creating uniquely tailored healthcare programs meeting both group requirements and individual employee needs.

Part 2: Technology and Management Innovations in Healthcare

ver the last thirty years, the world has seen shifts on a massive scale in technology, communications, demographic changes, increased life expectancy, and globally mobile populations. Taking these changes into account, new policy initiatives must correct the world's current lack of sufficient attention to the merging of information and medical technologies, balancing openness and personal privacy, and providing for the sustainable creation of new pharmaceuticals. New management innovations must acknowledge mental health issues and demographic changes such as graving populations, women's empowerment, a global workforce, and globally mobile populations. Information technology (IT) and healthcare are increasingly interconnecting, and huge opportunities exist for both to advance together in cross-disciplinary programs and technical expertise. Healthcare is a moving target: there will never be a single model. Strategies must be detailed enough to meet current demands, but flexible and innovative enough to serve very different populations, many decades into the future. Healthcare is a universal need, and in many countries indeed a constitutional right. It demands sustainability and cooperation. It requires commitment to high ethical principles, fairness, integrity, and critical thinking. Although so-called "alternative medicine" and new approaches should not be dismissed out of hand, institutional health care - especially care managed by governments and funded by taxpayers - should be strictly data-based. Decision-makers should firmly adhere to factual, verifiable medical evidence obtained using the scientific method.



Part 3: Challenges: Who Pays for Healthcare and How is it Supplied?

ealthcare may be the ultimate interdisciplinary study. It cannot be viewed just as a business, a public service, a technology field, an academic discipline, an ethics issue, a moral duty, a management study, or a matter of every person's most private life. It is all of these things

simultaneously. Business schools – neutral, intellectually independent and results-oriented – are perfectly positioned to take important and even leading roles in crafting healthcare solutions. The best solutions are unlikely to originate from individual companies, governments, universities, or not-for-profit organizations: they will only originate from collaboration between all of them. The question is not: "Do healthcare systems need reform?" The question is: "How should everyone constantly re-examine health concepts and implement systems to create the best outcomes in sustainable ways?"

Conclusion

While some healthcare systems are arguably better than others, all existing models are demonstrably inadequate for most present and all conceivable future purposes. Today's policies are for the most part reactive, input-driven, and financially unsustainable. By contrast, the successful systems of tomorrow will be proactive, driven by desired outputs, and financially sustainable.

"A sad soul can kill you quicker than a germ."

John Steinbeck

STUDENT SURVEY

Results of the International Student Survey by the member schools of the Council

Presenters:Ms. Hiroe Sakai, student at Keio Business School
Ms. Alexis Kheir, student at Tuck School of Business

The Council on Business & Society conducted a survey of graduate students attending the six member institutions to discover their views on health and healthcare. The survey was developed by the Council's academic committee and a group of university directors and reviewed by experts in survey design. Among the survey's more interesting results was that it clearly displayed some areas of convergence of opinion among the regions – as well as some areas of significant divergence.

Asked about the value of the healthcare system in their country compared with others, only 13% of students overall said their systems were pulling ahead. By contrast, 41% of respondents think that their country is falling behind. Regarding responsibility to improve the value of their healthcare systems, all regions put the government highest, with North Americans, Western Europeans, and Africans choosing the private sector second, Asians putting academic institutions second, and Central and South Americans putting individual consumers in second place.

Of ten health-related issues, reducing healthcare costs was viewed as the most important overall. Regarding employer responsibility, 84% of the overall students felt that it was either "essential" or "very important" that employers be concerned about their employees' health, and 71% felt that it was either "essential" or "very important" for employers to provide incentives and disincentives for their employees to adopt good health behaviors. Electronic medical records were seen as the number one area in which the private sector could improve the value of the healthcare systems of their country.

For access to the full survey, please click here.

"America's healthcare system is neither healthy, caring, nor a system."

Attributed to venerated U.S. newsman Walter Cronkite in a 1993 interview

PART 1

Healthy Employees, Healthy Corporations



ctive engagement by employers in the health of their employees is crucial not just from cost and regulatory perspectives, but from a strategic perspective as well. The goal should be better overall health and the alignment of strategic healthcare plans around this objective – as opposed to merely attempting to measure or validate a return on investment. Ensuring that one's employees are in optimum health is not merely a good health strategy.

People who are healthy (which implies a healthy lifestyle) are less expensive for everyone: society, the employer, and the employee himself/herself – than people in poor health. The importance of psychosocial diseases and their impact on the productivity of employees are clear, so organizations and managers must find a way to alleviate them.

Results, however, can only be optimized with better coordination among decision-makers and the best use of technology – a challenge in fast-paced economies. Companies have a heavy burden of responsibility to find the right balance between economic realities and healthy employees, and to create and implement proactive solutions to achieve this balance

BUSINESS AND SOCIETY AT THE CROSSROADS – WHY IS CORPORATE HEALTH MANAGEMENT SO IMPORTANT?

Contributor: Dr. Axel Baur, Senior Partner, McKinsey and Company, Tokyo Office

Overview: Social trends are creating new and increased health risks in the work environment. Employers that proactively use corporate health management to address potential issues can create significant competitive advantage. This topic has powerful ethical considerations and includes a term that barely existed a decade ago: "presenteeism" – the practice of working while unwell or persistently working longer hours and/or taking fewer holidays than the terms of one's employment allow, especially as a result of fear of losing one's position or even employment.

Key studies demonstrate a worrying trend in the relationship between employee healthcare and negative financial impact. Indeed, healthcare costs are shown to be increasing faster than other cost factors with *presenteeism* currently representing the biggest cost driver in many industries. Statistics show that just the top three problem classifications (psychiatric conditions, respiratory conditions, and musculoskeletal conditions) cause annual presenteeism costs of roughly US\$8.4 billion for the German car manufacturing industry alone. Furthermore, compound annual growth rates of German employer healthcare costs were 4% between 2005 and 2010, while during the same period the comparable growth of wages and GDP was only 1%.



This data points to the conclusion that companies can achieve high return on investment (ROI) through appropriate healthcare measures. The primary reasons for offering health and wellness programs are to improve the health of employees and reduce absenteeism, and therefore in turn reduce healthcare costs. Investments in health and vitality of employees are mostly long-term oriented. A meta-analysis of more than twenty studies on health plan cost savings – and an equivalent number of studies that examined sick leave absenteeism savings – both found significant ROI in both medical cost savings and absenteeism reduction. Research suggests that behavioral changes can also drive down illness costs, but behavioral change requires the consideration of many factors including incentives, education, training, awareness raising, and other promotional techniques.

There is recognition among those who benefit the most from employee healthcare - employees

themselves – that such initiatives are effective. Employees recognize, acknowledge, appreciate, and reciprocate when their employer cares for their well-being. In recent years, employee wellness programs have become "the new standard" in many companies, with a majority of firms generally recognized as "best in class" now engaging in employee health and wellness initiatives, compared to almost none as little as five years ago. Moreover, employees feel that health and wellness programs positively impact the overall work culture at their place of employment. They are linked to raising morale and maintaining people on a positive track during negative and/or seismic change like downsizing, offshoring, downturns in the overall economy, and temporary business slowdowns.

There is no one-size-fits-all solution. Companies need to find the right solutions that fit their business model and culture. Illness patterns vary by industry region, and employment category. The choice of measures taken must be essentially industry-driven as well as results-oriented.

Key takeaways:

- The need for corporations to be concerned about the health of their employees arises from global, inescapable, and accelerating changes in working life and society.
- Employee populations and their healthcare needs differ by industry and sector and corporate health and wellness programs should be developed accordingly.
- Five megatrends are affecting the health of the working population:
- 1. Demographic change in the industrialized world, with increased life expectancy and decreasing birth rates leading to longer working lives
- Industry shift from manufacturing to services and knowledge work, meaning more people are seated all day. In addition, knowledge work requires a far stronger personal commitment than traditional manufacturing, meaning that high turnover is increasingly unacceptable for both employees and employers
- 3. Digitalization of work is shifting activities online and creating an "always on" mentality which does not allow for sufficient rest, which in turn leads to new forms of illnesses
- Globalization leads to increasing competition among talent and increasing peer pressure to "outperform," or work far more or harder than is healthy
- 5. Sustainability and corporate social responsibility are increasingly required by society, forcing companies to engage in health management initiatives regardless of their ethical perspective.

"The most exciting thing I learned when I was just getting into philanthropy was that, if you reduce childhood deaths, if you improve health in a society, that, surprisingly, population growth goes down."

Bill Gates



HEALTHCARE AND HEALTHCARE PROGRAMS – ARE THEY IMPORTANT FOR CORPORATIONS?

Contributors: Dr. Axel Baur, Senior Partner, McKinsey and Company, Tokyo Office Professor Robert Hansen, Tuck School of Business, Dartmouth College Dr. Alberto Jose Ogata, President, Brazilian Quality of Life Association Professor Gérard de Pouvourville, ESSEC Business School Professor Elizabeth Teisberg, Geisel School of Medicine, Dartmouth College

Overview: Approaching health as an integral part of corporate policy is instrumental in building the best possible team to generate positive outcomes for all stakeholders.

An important goal of global workplace healthcare is to find common solutions that companies can leverage to improve the overall health of their businesses as well as their employees. The fact is that most companies do not measure presenteeism well. Estimates on costs of presenteeism in the U.S., for example, range from 2 times to 15 times the existing costs of healthcare. By looking at existing actuarial projections of costs associated with health risks faced by employees, employers can identify ways to reduce the risks their employees face which will in turn bring down overall healthcare costs. The expected payback horizon for many programs is typically about five years, but many employers find that direct investments they make to reduce presenteeism are recovered much sooner than expected, in some cases after only around sixteen months. Furthermore, additional, indirect benefits such as increased employee morale, lower employee turnover, and reduced human resource costs, are often also forthcoming.

The rising incidence and severity of chronic disease is a critical issue for employers worldwide - and there is evidence that most companies do not understand the crucial distinction between primary and secondary illness prevention. Primary prevention aims to prevent a disease from occurring and reduces both the incidence of a disease - the frequency with which an illness occurs in a population - and the disease prevalence, which is the number of ill at a certain point in time (inoculations, and encouraging people to protect themselves from the sun's ultraviolet rays, are examples of primary prevention.) Secondary prevention is used after a disease has developed but before the person notices that anything is wrong. An employee receiving an annual examination by a company physician is an example of secondary prevention, the goal of which is to find and treat disease early - when in many cases the disease can be easily cured at that point. Tertiary prevention targets a patient who already has symptoms of some disease, when treatment is more problematic and the outcome less certain.

In the current healthcare paradigm, there is not enough attention paid to primary and secondary prevention. Companies do nothing until an employee is diagnosed with chronic diseases, and then spend exorbitant costs managing the resulting disease. This means that in addition to people coming to work sick, they come to work worried about loved ones as well. Accordingly, the

"That we are not much sicker and much madder than we are is due exclusively to that most blessed and blessing of all natural graces: sleep."

Aldous Huxley



health of employees' families is also an important aspect of healthcare initiatives. Sickness, absenteeism and presenteeism result in hefty costs for the enterprise and lead to the conclusion that corporate interest in employee health is not only altruistic but also strategic in terms of increasing both employee motivation and both individual, collective and corporate results.

Effective initiatives for employee health and wellness involve building internal programs that focus on behavioral change and the systems necessary to implement them. Innovative support programs, for example, can build staff loyalty and raise overall productivity. In addition, internal communications can be effective in changing awareness and behavior. A percentage of every organization's communications budget should be aimed at specific health matters such as obesity and smoking. Communicating with families can also be a very powerful force to bring about changes in behavior within a household. On a systems level, leadership needs to focus on what outcomes are obtained for money spent on healthcare in terms of productivity at work, rather than simply focusing on reducing healthcare expenditures. Employers may not be able to wait for the government or healthcare providers to address the issues that impact employee health and may need to come up with their own solutions.

So is the health of employees important to corporations? The answer must be a resounding "yes." And in order to implement an effective initiative, the World Health Organization (WHO) Healthy Workplace Framework and Model provides a useful tool in defining the five keys of a good program. These include leadership, worker participation, comprehensive programs based on evidence, sustainability, and ethics. By using this framework, it is possible to create a program tailored for each region while using the same logical model – thus enabling corporations to avoid the difficulty of implementing a worldwide program in a global organization.

Key takeaways:

- The corporate interest in employee health is not only altruistic. It is also good for the bottom line.
- In a knowledge-based economy, attracting and retaining the best talent is a key success factor. This, in turn, requires building an employer brand that includes employee health and wellness programs.
- It is essential to focus on outcomes for money spent rather than just reducing costs.
- The focus for those with chronic diseases should be on moving toward overall health rather than simply managing the progression of the specific disease.
- The WHO has developed a Healthy Workplace Framework and Model that is applicable to all countries and cultures.



EMPLOYEE HEALTH AS A STRATEGIC IMPERATIVE

Contributors: Professor Robert Hansen, Tuck School of Business, Dartmouth College Mr. Geoff McDonald, Global Vice President Human Resource for Talent, Marketing, Communications, Sustainability & Water, Unilever Corporation Professor Elizabeth Teisberg, Geisel School of Medicine, Dartmouth College

Overview: Focusing on employee health holistically as a preventive measure to avoid illness, and fostering an environment where health issues can be discussed, can result in a more resilient workforce as well as improved healthcare value and overall positive ROI.

'he Council's position is that it is vital for organizations to take a strategic approach to improving employee health in view of long-term stability and benefits. We all live in a world where "people have the power" thanks to the explosion of social media. Opinions and experiences of individuals matter much more than they ever have in the past, and that companies ignore unhappy employees or dissatisfied customers do so at their own peril. In other words, any organization with a strong sense of survival needs to focus on the well-being of its employees and consider them as customers for ethical as well as pragmatic reasons. The problem in many countries is the focus on spending rather than on outcomes. Healthcare in the U.S., for example, is widely regarded as relatively ineffective, with far more spent on worse outcomes compared with other countries; i.e., the American system gives a low return on investment. Health results are not necessarily a function of spending, but rather of how cleverly the spending is done. People want health, not treatment. The fact that those with a chronic condition miss almost twice as much work as those without a chronic condition leads to the conclusion that more effective prevention, including primary, secondary, and tertiary prevention are required. Healthcare services need to be structured around customers, with more logical organization of acute care to reduce the time needed to consult different practitioners.

"Diseases of the soul are more dangerous and more numerous than those of the body."

Cicero

Both chronic diseases and good health are contagious. Health is a socially shared issue, so promoting healthy lifestyles at work is vital. However, specific issues vary between enterprises. Poor-health employees incur health costs in addition to other knock-on costs to the enterprise; it is therefore important to work with insurers or governments to establish and share outcome measures that are determined based on local circumstances and the particular environment or condition of the community being evaluated, these must certainly extend to the industry level at least, and possibly even to the individual company level.

Studies show that in recent years absenteeism and illness are increasingly related to mental health issues, and mental health issues have long been stigmatized in the corporate world. In 2012, for example, an estimated €92 billion (US\$118 billion) was lost in the European economy due to absenteeism linked just to depression and anxiety. In an effort to break this stigma, Unilever created a



framework to build leadership, management capability, and corporate-wide understanding of the importance of a healthy mind. In addition to running campaigns, such as bringing in role models to talk about mental illness, senior leaders were encouraged to talk about their own experiences with depression, anxiety, or other mental illness – something that required considerable courage. A by-product of this program was that by discussing mental health illness when or after it occurred, employees would later realize that such dialogue was a sign of strength, rather than weakness. The fact is, being anxious, stressed, or depressed is not a sign of failure. One in four people will experience this issue at some point in their life. Consequently, an atmosphere must be created where people feel comfortable talking about mental health issues in the workplace. Of course, the causes of mental illness are complex and cannot always be attributed to issues in the workplace; nevertheless, employers must play a leading role in developing solutions.

Other positive initiatives in combatting mental health issues involve encouraging resourcefulness and resilience in the employees themselves. What can be done upstream to stop people getting sick in the first place, through rest, being able to "switch off" or disassociate from the workplace for a period of time (long or short), and examining how teams are working together is important in tackling the causes of stress and related illnesses. It is interesting to note that research shows that one of the biggest sources of stress is lack of feedback from line managers. Improved communication among and between employees is therefore imperative. Employers should also provide employees with opportunities to learn about mindfulness, meditation, yoga, the importance of recovery during the course of a day, and during a holiday.

To conclude, employee healthcare is strategic: intimately linked to motivation, employee loyalty and results, and directly impacting company reputation and results.

Key takeaways:

- To protect their corporate brand, companies must provide employee health and wellness programs.
- Companies must consider how to build resourcefulness and resilience in their staff.
- Focus should be on outcomes, results, and value.
- Efforts must be made to break the stigma associated with mental health in the corporate world. In many cases, support initiatives have been implemented in theory but are not used in practice due to fear of talking about mental health.



IMPLEMENTING A STRATEGY FOR HEALTH

Contributors: Dr. Hideyuki Ban, Hitachi Corporation Ms. Betsabeh Madani, Corporate Business Strategist, Cerner Corporation Professor Jonathan Skinner, Dartmouth College Professor Scott Wallace, Geisel School of Medicine, Dartmouth College

Overview: To improve the health of employees, employers worldwide can implement strategies by taking an active role in creating health benefits, designing a work environment, and influencing the delivery of care. By considering the leading trends in each of these areas, the consequences of employers' actions on the health of employees, and the implications for success, employers can create a strategic approach to employee health.

What are the key healthcare strategies that corporations can use to create value for both employer and employees? For a start, the goal should be better overall health and the alignment of strategic healthcare plans around this objective – as opposed to merely attempting to measure or validate a return on investment. Ensuring that one's employees are in optimum health is not merely a good health strategy. People who are healthy (which implies a healthy lifestyle) are less expensive for everyone: society, the employer, and the employee himself/herself – than people in poor health. The focus should be on the health impact of programs instead of the financial impact for the organization.

In order to formulate appropriate strategies, it is first essential for corporations to understand their employees' unmet health needs. The question "what is causing your employees to be unhealthy?" should be the very first question to address. After identifying obstacles to employee health, corporations should create a portfolio of initiatives to address an entire range of needs – as opposed to having a single program that may only work for a small subset of employees. Lifestyles are communicable and successful strategies have committed and visible leaders, so ensuring a positive tone from the company's top executives often guarantees good rollout and a good health culture. Changing the culture of health within an organization, by starting with its leadership, is a simple measure that can greatly influence other employees.

A pragmatic approach also contributes to successful ownership of an employee healthcare program. An easy-to-use system or interface, for example, can help facilitate transitions in lifestyle changes, enable employees to work more efficiently, and help employees improve their long-term health prospects. Making these systems convenient and easy-to-reach are very important considerations. Health directly affects every aspect of a person's life, and in order to maintain good health over the course of a lifetime, a healthy lifestyle must fit into a person's other activities without requiring overwhelming changes in behavior. When stressful situations are encountered, maintaining significant changes that are out of character can be too challenging to be sustainable. Establishing a reward system or friendly competitions for being active and living healthy can motivate employees and encourage positive lifestyles.

Finally, the issue of time is important. Experience has shown that participation rates in health programs increase dramatically when activities can be performed "on the clock" rather than on an employee's personal time.

Two success stories are provided by the Hitachi and Cerner corporations. In Hitachi's case, its Central Research Laboratory set up a weight-loss program utilizing an Internet-based support system to help both medical staff and other participants record and find the relationship between weight and behavior. Over 1,200 employees participated, with positive results including a 30% reduction in annual medical fees. At Cerner, the company implemented a strategic approach to health management and 88% of the



firm's 14,500 employees currently participate in its comprehensive programs. Periodic reevaluations of the overall program have resulted in premium increases of only 1.6% over the past five years, compared to the national average of premium increases between 7-10% in the U.S. Additionally, Cerner's total out-of-pocket spending per member per month on employee health for the past five years went down by 13% despite more than 100,000 visits to on-site or affiliated clinics. As a result, the company estimates that it saved US\$10 million in lost productivity.

Key takeaways:

- The goal should be better health. It is important to align strategic healthcare plans around the goal of better health as opposed to trying to measure or validate mere return on investment.
- A first step is to understand the unmet health needs of employees.
- A good health culture starts from the top.
- Convenience and reach, company time, easy-to-use systems, and even leisure at the workplace are important considerations.

PSYCHO-SOCIAL RISKS IN THE WORKPLACE: DOES MANAGEMENT CARE?

Contributors: Professor Annick Ancelin-Bourguignon, ESSEC Business School Professor Naotaka Watanabe, Keio Business School Professor Adrian Zicari, ESSEC Business School Professor Gérard de Pouvourville, ESSEC Business School

Overview: Psycho-social risks (PSR) cover a wide array of health issues related to the work environment, encompassing both psychological and physiological problems. Because they have received attention primarily from sociologists and psychologists, they may have been either underestimated or ignored by management in the past. The importance of these issues and their impact on the productivity of employees are clear, so organizations and managers must find a way to alleviate them. However, this is easier said than done, as modern trends in management systems and performance assessment tend to actually exacerbate PSR. As such, rather than adopting short-term, "band-aid" solutions to these issues, it may be necessary to reassess the overall management approach.

Broadly speaking, PSRs are defined as any ill-being or suffering at work. These are most commonly psychological, but can also be physiological. There are three common views on PSR. First, there is the psychological view, which suggests that people suffering at work are fragile and require more support than they are typically receiving. This view, however, is not supported by empirical evidence. Second, there is the industrial view, which considers PSR to be like any other industrial risk and which should therefore be treated as such. Third, the psycho-sociological view suggests that there is a weakening of communities at work. It should be pointed out, however, that research is incomplete and none of these views claims to fully address organizational context and the influence of management systems.

PSR is a growing problem in workplaces. It requires identifying the various contributing factors and positing potential ways to address them. Estimates for the economic impact of PSR vary by country but are likely to be very high. In 2002, the cost of stress at work and related mental health problems was already, on average, 3-4% of gross national product in the fifteen countries then in the EU, amounting



to €265 billion (USD 250 billion) annually. A 2007 estimate suggested that the cost of stress in the U.S. has risen to the same figure: \$200-300 billion annually. Furthermore, in 2007 studies show that in the EU-27, 27% of workers were exposed to factors that could adversely affect their mental well-being. These studies in total suggest that more than 50% of all lost working days are related to work-related stress.

Management systems can be active contributors to the growth of PSR. Performance management systems (PMS) such as performance-based compensation, rank-and-fire, or unnecessarily severe individual appraisals can aggravate PSR. Specifically, the use of PMS can lead to greater work constraints rather than increased productivity. Workers pushed to pursue infinitely greater excellence will eventually revolt, pointing out for example that endlessly doing "more with less" logically leads to eventually doing "everything with nothing." Excessive pressure can result in a loss of meaning for work: benchmarking, rankings, and performance-based compensation foster competition between employees, creating conflict between individuals, and can lead to feelings of insecurity. Finally, unrestrained PMS clash with values that some companies claim to adhere to in their annual reports – "our employees are our most important asset". Workplaces are a source of not only subsistence but also social interaction, self-esteem, etc., and unchecked evaluation and compensation systems often represent the threat of punishment as a daily experience. The argument can therefore be made that the use of certain managerial practices, including PMS, should be minimized to the greatest extent possible.

On the other hand, while PMS and other forms of management control are undoubtedly a source of jobrelated stress, some degree of control will always be required and some stress can be highly positive. Simply stated, there are two dimensions to stress. The first is the pressure dimension, which can have a positive effect on performance. The second is the threat dimension, which adversely affects performance. The two dimensions do not necessarily share a close correlation. A preliminary study by ESSEC suggests that limited resources increase both dimensions of stress, and highly interactive use of PMS by top management (not merely one-way or top down) decreases both dimensions of stress. In addition, performance-based compensation increases the pressure dimension of stress but not the threat dimension. The same study hypothesizes that increasing the comprehensiveness of performance measurements increases the pressure dimension while decreasing the threat dimension, but there is not yet sufficient evidence to support this assertion in its entirety. In short, research suggests that management controls are a double-edged sword: there are some desirable features to those that are used well, and undesirable features to those that are implemented poorly.

At the individual, workplace, and organization levels, the introduction of a mentoring program can be an effective tool for primary prevention of PSR. Such programs can mitigate harmful circumstances before they have a chance to metastasize into serious problems. A mentoring program is characterized by a carefully constructed environment that facilitates a developmental relationship between the mentor and mentee. Relationships are overseen and monitored by administrators or coordinators, who may be "laymen" or experienced and qualified PSR professional. A pilot study on mentoring by Dr. Watanabe of Keio Business School found that there was a positive correlation between how much "mentee" experience an employee had received in the past and their present job satisfaction. The same study found a negative correlation between past mentee experience and present strain. There seems to be no specific technique in mentoring: the relationship itself is the most important part.

PSR are mainly a consequence of management systems rather than individual managers. Modern management systems can be highly impersonal and it may be beneficial to reemphasize human relationships and restore a sense of community at work. It is important to foster a climate of trust that makes it possible to raise concerns or issues of stress, naturally.



Key takeaways:

- PSR and work-related stress are a major health and safety challenge, especially in developed countries, and come with a heavy negative economic impact.
- There remains a lack of academic consensus on how PSR are defined and perceived.
- The role of management systems in the development of PSR is generally overlooked.
- A mentoring program can be an effective means of addressing PSR.

A CULTURAL PERSPECTIVE: THE JAPANESE EMPLOYEE AND THE BUSINESS AND SOCIETY DIMENSION

Contributor: Mr. Takeshi Erikawa, Former Vice-Minister, Japanese Ministry of Health, Labor and Welfare

Overview: There is an inherent and long-standing culture within many Japanese companies that draws together employees and defines how they view their wider contribution to business and society.

The relatively new concept of "Corporate Social Responsibility" requires that businesses today address consumer demands that go beyond a firm's core business. Global consumers now insist that companies interact with society not only through their core businesses, but also through "non-core philanthropic activities." How many Japanese executives intrinsically believe that business contributes, or should contribute, to society in both ways via sincere fulfillment of the core business without necessarily any requirement to participate in non-core activities?

A traditional Japanese way of thinking about profit called "*Sanpo-yoshi*," which translates into English as "3-way satisfaction," is a concept that provides an interesting contrast to mainstream economic theory and primarily utilizing a framework of the two-way transaction: buyer vs. seller, supply vs. demand, etc.

In the *Sanpo-yoshi* view, the objective is to ensure that any business transaction generates a positive result for three parties: the buyer, the seller, and society as a whole. The motivation is based on a spirit of "sincerity and consideration" (in Japanese, *Chujo*) which itself has roots in the Confucian philosophical view that profit will naturally accrue to one who engages in socially righteous endeavors or behavior. It is important to emphasize that this way of thinking produces concrete results in Japan in ways that may not be obvious to casual observation. For example, Japanese CEO compensation is significantly lower than in the U.S., demonstrating a sense of balance and fairness amongst all employees, regardless of their seniority.

This mindset also greatly constrained the development and enforcement of a robust patent system in Japan. In the U.S., new knowledge is considered the personal property of its creator, who may use it – or withhold it – as he or she wishes. The purpose of a patent is to steer as much wealth to its inventor as possible. In the Japanese point of view, intellectual property is wisdom – which is a public treasure – and the value of a patent is not the enrichment of a single creator, but rather the diffusion of the information as widely and effectively as possible, via patent publication, for the benefit of industry and society overall.

The major challenges now facing Japan include a declining and ageing population, deflation and slow economic growth, youth unemployment, and the need to ensure the sustainability of the social security



system and healthy national finances. Companies can contribute to tackling these challenges in a number of ways, firstly by raising financial performance and contributing through taxes. Providing permanent employment for young workers, developing them as globally adept human resources, and improving labor practices to allow for childrearing also provide meaningful solutions to national challenges. Finally, pharmaceutical companies are directly concerned with employee healthcare and contribute to society not only by developing new drugs for prevention and treatment of disease, but developing new ways of administering healthcare and creating environments that stimulate innovation; for example, the realization of regenerative medicine.

To conclude, Japan currently aims to tackle the many challenges it faces through so-called Abenomics policies of fiscal stimulus, monetary easing, and structural reforms. These are particularly timely given Japan's raising of its national tax on nearly all forms of consumption, from 5% to 8%, on April 1, 2014.

Key takeaways:

- Japanese work culture traditionally values a three-way satisfaction concept between the seller, buyer and society at large; sincerity and consideration, and a belief that profit follows naturally from honest behavior.
- Faced with the challenges of the 21st century that specifically include an ageing and declining population and overcoming deflation, Japan is committed to solutions using Abenomics, growth strategy and the creation of environments that stimulate innovation.

PART 2

Technology and Management Innovations in Healthcare



art 2 addresses the theme of "Technology and Management Innovation in Healthcare" to discuss emerging technologies that are transforming both management and healthcare. The main finding is that while the world still has plenty of room for technological innovation, rather than focusing on new technology per se, the focus should be on patient needs and desired outcomes, and the value (benefits versus costs) of new innovations and technologies.

USING TECHNOLOGY TO COST-EFFECTIVELY DELIVER BETTER OUTCOMES AND THE BEST PATIENT EXPERIENCE

Contributor: Mr. Martin Burger, Senior Industry Advisor Healthcare, SAP Asia Pacific Japan

Overview: Technology, if harnessed effectively, can provide rapid on-the-spot assistance and insights, and improve personalized healthcare.

In healthcare, SAP's guiding principle is "using technology to cost effectively deliver better outcomes and the best patient experience." This raises questions of how to best leverage mobile devices, big data, and other recent developments in order to better involve patients in the treatment process and generate the best impact on individual treatment. Helping patients to remain healthy and avoid visits to clinics or hospitals by utilizing health monitoring, alerts, and online real-time advice is also an area of specific focus. SAP Japan has worked with the Keio Business School on a "design-thinking workshop" to focus on empathy in addressing patient issues, bringing together information on what people associate with a positive lifestyle into a prototype of a life advisor application. SAP believes that recent developments in technology can be better leveraged to improve outcomes and patient satisfaction.

A previous section discussed stress in the workplace. Physicians also work under a lot of stress. They require the right information at the right time to allow them to spend more time with patients and less on paperwork and administration. Only when doctors have timely access to analytical information can they deliver the best, most personalized treatment for the patient.

There is a major new trend toward the use of in-memory computing instead of traditional databases, which vastly improves the speed of data access and which opens up new possibilities in the area of predictive analytics (in-memory computing is the processing of information stored in random access memory [RAM] dedicated servers rather than in relational databases operating on comparatively slow disk drives). This technology played a role in the Human Genome Project, allowing researchers to more quickly understand the information stored in DNA samples. SAP has used this technology to develop a



proprietary healthcare platform called HANA, which uses in-memory computing to enable personalized medicine by combining clinical data in real-time with genomics data, proteomics data, and personal lifestyle data such as fitness trackers and pedometers. As a concrete example, Seoul National University Hospital used the system to substantially reduce its use of antibiotics, and, as a result, the use of third-line antibiotics (which are prescribed when both the first and second antibiotics of choice prove to be ineffective) in one trial was reduced to zero.

For hospitals, a platform that enables efficient operations is essential. Management of staff skills and availability to ensure skills are available where needed, while at the same time minimizing overstaffing in any particular area, is crucial for the effective management of hospitals and efficient use of tight hospital budgets.

Key takeaways:

- Recent developments in technology should be leveraged to improve outcomes and patient satisfaction.
- Timely access to useable analytical information for doctors can contribute to personalized treatment.
- New types of analytics can provide managers with better insight into performance against hospital objectives in real-time, enabling effective leadership.

TECHNOLOGY AND MANAGEMENT INNOVATIONS: THE FOCUS ON END-USERS, OUTCOMES, AND AWARENESS

Contributors: Mr. Martin Burger, Senior Industry Advisor Healthcare, SAP APJ Ms. Betsabeh Madani, Corporate Business Strategist, Cerner Corporation Professor Ana Malik, FGV-EAESP Professor Martin Pohl, University of Tsukuba Professor Scott Wallace, Geisel School of Medicine, Dartmouth College Professor Yunjie Xu, School of Management, Fudan University Dr. Jianwei Xuan, Adjunct Professor, School of Public Health, Fudan University, China.

Overview: While many challenges remain in the application of new technology and management innovations to the healthcare sector, key factors for success include a focus on end users, outcomes, and raising awareness.

What are the challenges in applying technological and business model innovations to the healthcare sector? How will these innovations impact the quality and cost of healthcare? Successful innovation requires a focus on the value of innovation, rather than the novelty of innovation. "Value" in this sense means, at a minimum, a practical purpose or application that fulfills an unmet need, as well as clear financial viability: ideally benefits that equals or exceeds direct and indirect costs. Value orientation requires an understanding of key stakeholders, and in the healthcare environment this requires tracking of the full cycle of patient outcomes. From a clinical efficacy perspective, the data required includes overall survival, quality of life (QOL), and progression-free survival. ("Progression-free survival" is a specific kind of survival rate, which is the percentage of people in a study or treatment group who are alive for a given period of time after diagnosis. It refers to the span of time during/after medication or treatment in which a condition does not get worse, and is a metric that describes the health of a person with a disease to try to determine how well a new treatment may be working.) It is important to note that patients value QOL more than progression-free survival.



Two important trends can be observed in the application of technology in healthcare: using technology to advance strategy, and using technology to improve measurement of outcomes. While there has been effective tracking of inputs in patient interactions, such as medications administered, there has been little measurement or tracking of patient outcomes relative to their healthcare experiences. This lack of measurement will have to be addressed as informatics enters a new phase of maturity.

Among the major challenges ahead is included the question of fragmentation among existing systems. Hospitals, physicians, and occupational services all currently have their own systems, typically with none of them connected well, if at all. The question is how to integrate these systems to create value for the patients. One approach is to use incentive models to bring the different players together. For instance, Germany introduced a model driven by health insurance players that encourages general practitioners and hospitals to work in tandem.

Getting physicians to actually use available technology is also a point high on nearly everyone's agenda. Generally, healthcare is behind many other industries in degree of automation. There is also deep segregation between those who are relatively advanced and those who are far behind. However, in order to adopt new technologies physicians need to know what technology is available, and in many cases government involvement may be an indispensable factor (generally speaking, any large-scale investment is always at least somewhat influenced by government decisions). After Japan's 2011 Tohoku earthquake and tsunami disaster Japanese physicians requested that the government install an information system to allow them to access medical data from locations other than a patient's primary healthcare facility. Even a short distance from where they had lived, many patients needing treatment were disadvantaged because the available physicians had no access to their new patient's medical histories. A key follow-on from this finding is that in order to reduce investment in required training, technology must be designed for non-technical users.

Finally, the field of personalized medicine provides an important point on which to focus attention. While personalized medicine can potentially bring great benefits in terms of more effective and targeted treatment, there remain challenges to be overcome to enable its widespread adoption, including commercial viability, the point at which it becomes inefficient to test for low-yield pathologies (diseases that are expensive to treat but are relatively rare and/or expensive or difficult to test for accurately), and the large amount of tissue required for separate pathology testing for multiple procedures. There are studies underway using predictive models for the likelihood of patients having, for example, gene mutations. With this predictive data, physicians can test patients with a high probability of susceptibility or resistance to certain forms of testing or treatment, thereby directing technology towards patients who will benefit from the technology while avoiding testing or treatment that has a high probability of being ineffective, inefficient, or counterproductive.

Key takeaways:

- The best applications of technology focus on end-users and outcomes, not the technology itself.
- Informatics is now entering a new phase of maturity. Technology can be used to advance strategy and to improve the measurement of outcomes.
- Fragmentation among existing information systems is a major challenge that needs to be overcome. The question is how to integrate these systems to create value for the end-users, the patients.
- To get physicians using available technology, greater effort is needed to design for nontechnical users.

Many challenges remain to be addressed in the field of personalized medicine, including commercial viability, the point at which it becomes inefficient to test for low-yield pathologies, and the large amount of tissue required for multiple pathology tests.

INNOVATIVE TECHNOLOGY APPLICATIONS IN HEALTHCARE

Contributors: Professor Yingyao Chen, School of Public Health, Fudan University Professor Martin Pohl, University of Tsukuba Professor Scott Wallace, Geisel School of Medicine, Dartmouth College Professor Yunjie Xu, School of Management, Fudan University

Overview: Information systems are converging toward comprehensive tools for improving health outcomes for unique patient groups. Although initial efforts to introduce outcome measures will be imperfect, they must be introduced and used in order to develop improvements.

Technology has revolutionized and will continue to transform the way healthcare is delivered. However, rather than rely entirely on trial and error, a more rational approach is to first try to visualize what the technology is trying to achieve, and then identify what characteristics of technology might enable reaching the desired endpoint. For example, at present hospitals may have highly advanced accounting and billing systems, and they may have data control systems for things like medical equipment, supplies, and drug inventory – but it is unlikely that the two systems are integrated with each other. Thus, the need for all-embracing workflow support systems that tell managers and health care providers what to do, when to do it, ensure that the right supplies and equipment are ready, and bill everything automatically. Such a comprehensive system can be adjusted as necessary to improve the health outcomes for unique groups of patients. The organization of health facilities also needs to consider the actual patients' use of the facilities. A facility that tries to serve all patients in every possible field will not be able to perform as well as another facility that focuses on a particular group and their specific needs. While it may appear inconsistent with the ideal of universal health care, when it comes to actual patient treatment every decision is a tradeoff and should be made deliberately.

Two clear examples of innovative technology impacting on healthcare can be seen in assistive limb technology and diabetes. In the former, at the University of Tsukuba a Hybrid Assistive Limb (HAL) system has been developed which uses nerve signals sent from the brain to move robotic devices in unison with the wearer's movements. This is expected to be applied, among other uses, in rehabilitation and physical training support. As a way of communicating this development, an innovative health store offering HAL training to the public was established in a shopping mall setting to make it more accessible and to allow technical training to be combined with shopping and other everyday activities.

On the subject of diabetes, China provides a useful case study. China has a relatively high disease burden, with diabetes constituting a growing challenge for the country. Significant innovation is required to face this challenge, not least because people with diabetes require at least two to three times the healthcare resources compared to people who do not have diabetes. The initial focus of innovation will be on medical efficacy and safety, but later – once widespread – the focus will shift to access and cost-effectiveness.

Innovation necessarily involves taking steps toward implementing outcome measures. Initial efforts to introduce them will be imperfect, but will be improved through trial and error. Many reasons can be found to dislike a certain system, but a focus on how to improve it, rather than mere opposition, creates



a path toward solutions. Clinicians must therefore be given some benefit or incentive in return for using a system, such as being able to do final reviews from home to improve their flexibility.

Key takeaways:

- Technology has already transformed the way healthcare is delivered, but new technologies have the potential to further revolutionize the industry.
- Assistive limb technology and diabetes provide good case studies to observe how technology can transform healthcare.
- It is imperative to take steps toward implementing outcome measures, even if a new system is highly imperfect.

BUSINESS MODEL INNOVATIONS IN HEALTHCARE

Contributors: Mr. Hiroto Furuhashi, Associate Principal, McKinsey and Company, Tokyo Professor Jonathan Skinner, Dartmouth College Professor Elizabeth Teisberg, Geisel School of Medicine, Dartmouth College

Overview: The healthcare industry is engaged in significant business model innovation. Value-based competition, increased consolidation, and changes to methods of paying for healthcare are just some of the current changes taking place.

Technology adoption – in data, analytics, devices, and channels – is shaping opportunities to go digital. There are major opportunities in digital customer engagement and advanced analytics to increase financial impact and customer relevance. Currently there are at least four big digital opportunities seen in the pharmaceutical industry, including competition on big data for advances in analytics, utilizing omni-channel for efficient engagement of physicians and patients, driving access in digital medicine, and implementing tech-enabled services.

There are already success stories in developing multichannel commercial models using digital solutions and improving commercial models with advanced analytics and data. When successfully implemented, such programs have resulted in up to a 30% decrease in spending and a 15% increase in sales targets.

The Accountable Care Organization, or ACO – a group of doctors, hospitals, and other healthcare providers who come together voluntarily to give coordinated high quality care to patients – can be a useful business model for shared savings between the government and healthcare groups. This is different from a health maintenance organization, or HMO, as the emphasis is on the providers – doctors, nurses, and hospitals – coming together rather than being employed by a single large company. It still applies fee-for-service billing, but Medicare (a major U.S. government program of hospitalization insurance and voluntary medical insurance for persons aged 65 and over, and for certain disabled persons under 65) will pay an additional amount if the ACO brings costs down and keeps quality levels up, allowing both parties to benefit from the "shared savings." Successful sites expand the roles of non-physician providers such as nurses or physical therapists, integrate care management into clinical practice, improve the use of information technology, and completely redesign the primary care practices, thereby ensuring people do not end up in the emergency room. Unsuccessful sites signed up for the program but did not implement any changes to reform.

What if healthcare solutions were actually designed from the patient perspective? Everyone needs to think about value: successful health outcomes for the patient for the money spent – not ignoring costs,



but focusing on the outcomes. Most healthcare is designed to be customizable for every patient, but generally practitioners do not take advantage of the expertise that could be developed for segments of similar patients. While every patient is unique, most medical issues are not unique. Individualization is also easier if a healthcare professional is working with an expert team involved in similar cases as they can help customize treatments. On the other hand, if the team is asked to treat an array of health issues that is too broad, they may not recognize the individualization that is necessary relative to the standard protocols.

In conclusion, healthcare needs to offer value. There are several ways of going about this. Define services from the patients' perspective. Define how value is created for patients. Organize care delivery around solutions, also from the patients' perspective, bearing in mind the question *what does the patients' journey need to be to succeed and improve their health?* Solutions are often complex in their grounding which entails the creation of interdisciplinary/multidisciplinary teams to deliver these solutions because it normally requires expertise from more than one aspect. Measuring results for the purpose of accelerating the teams' learning also has to be taken into account. A lot of discussion around measuring results is around pay for performance or creating incentives, but measuring results in order for a team to learn when it is doing well, how it is doing well, and what drives improvements will accelerate improvements much further. If these crucial pieces of the puzzle are drawn together, it is then possible to align financial success with medical success.

Key takeaways:

- An ACO (Accountable Care Organization) can be a useful business model for shared savings between the government and healthcare groups.
- Keys to accelerating dramatic improvements in the value of healthcare include defining how value is created for patients, organizing care delivery around solutions, the creation of interdisciplinary/multidisciplinary teams and measuring results for the purpose of accelerating the teams' learning.

MANAGEMENT INNOVATIONS IN HEALTHCARE

Contributors: Dr. Suleika Bort, University of Mannheim, Business School Professor Ana Malik, FGV – EAESP Professor Michael Woywode, University of Mannheim, Business School Dr. Jianwei Xuan, Adjunct Professor, School of Public Health, Fudan University, China

Overview: In recent years biotechnology has grown as a field, bringing with it new technology, knowhow, and skills. A number of countries have attempted to develop national biotechnology industries to ensure that collaborative efforts are successful: collaboration and inter-linkage between the various players in the industry are of great importance, both in terms of knowledge-sharing and in terms of financing research. International cooperation is also essential. At the same time, the pharmaceutical industry has also undergone major changes. In particular, there has been a trend towards more stringent assessment of healthcare technologies, cost-efficient research, a greater need for world value evidence, and better customer and patient focus.

As defined by the Organization for Economic Cooperation and Development (OECD), biotechnology is "the application of science and technology to living organisms, as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, goods and



services." The main industry players are research institutions, small biotechnology companies, large pharmaceutical companies, and venture capital. Inter-linkage between the various actors is essential for the industry to function properly. The biotechnology industry is characterized by an emphasis on research and development, high capital intensity, long product development cycles, and high levels of technological and market risk. In light of this, there is a high failure rate, pointing to the urgent need to develop, maintain, and manage inter-firm collaboration and strategic alliances.

The context can be viewed as the types of research institutes and policies that have historically existed in a certain country. Specifically, these pertain to the level of linkage with foreign research institutions and the commercial orientation of domestic institutions, as well as funding for basic research and the direction of scientific education. The national institutional context consists of labor mobility, the venture capital market, the government role in technology diffusion, and technological accumulation in related sectors in a particular country's industry. Institutionalized patterns of corporate behavior pertains to the level with which firms collaborate with research institutions and other firms, as well as the degree of foreign technology utilization. Overall these factors determine the stock of knowledge in research institutions and in the industry. In addition, they influence the extent to which knowledge flows between institutions and industry, as well as the inflow of foreign knowledge into the two.

There is no one single prescription for developing a successful and competitive biotech industry. A study looking at the respective industries in the US, Germany, and India suggests that success depends on a combination of various cultural, political, and financial factors. Above all, alignment of these various factors is of particular importance. For example, in terms of policy there needs to be alignment at the local, national, and (in the case of Germany) the broader regional level. Furthermore, public funding is needed to support the development of the industry, but public funding alone does not necessarily produce the desired outcomes. Firstly, researchers themselves need to be incentivized to translate scientific advances into commercial opportunities. In addition, investment is also required from venture capital and the pharmaceutical industry. Next, collaboration among firms and research organizations, both domestically and internationally is key: in particular, an international focus should be encouraged and international cooperation supported. Finally, entrepreneurial orientation is greatly beneficial, if not indispensable.

In recent years there has been a significant rise in healthcare spending, both as a percentage and in absolute terms, particularly in the BRIC countries. In light of this, those who pay for healthcare technology need tools to determine the value of innovations and reimburse the innovations accordingly. They need to consider clinical and patient benefits, their own budgets, and value for money. Consequently, the development of formal health technology assessment systems and other cost-control strategies have grown in prevalence.

New business models have emerged in the pharmaceutical industry in response to changes in the healthcare field. Pharmaceutical firms have had to adapt to the growth in health technology assessment use, which has brought with it a trend towards decision-making at the institutional level rather than the physician level, and also a focus on real-world value evidence to differentiate products and justify price. As a result, firms have had to restructure commercially and hire a more educated sales force. In terms of R&D, firms have had to increase research efficiency, conduct more focused research, and reduce costs. Furthermore there has been increased investment in conducting trials in developing countries, where development phases are faster and there is an opportunity to capture the population of a growing market. There has also been medical organization restructuring, with greater emphasis being placed on customer-oriented medical research, real-world value evidence, and proactive safety research to pre-emptively detect issues.



In the future, there will have to be greater collaboration and negotiation among payers, industry, and patients to facilitate the pricing of goods and services, risk sharing, performance guarantees, and better access. The development of innovative access programs, for example, would make it possible to reach a broader section of the population, who would in turn be more productive citizens. This could include the provision of targeted supplementary health insurance programs, or paying for upstream diagnosis costs to identify the right patients for personalized medicines. Lastly, greater external collaboration can strengthen value-based approaches involving value evidence generation and packaging and communication, which can help differentiate products and technologies from those of competitors and better justify formulary coverage.

Key takeaways:

- Biotechnology is a diverse field involving complex technology, knowhow, and skills. The current rate of failure for new drug development provides clues that, if analysed properly, can lead to the success of a national biotechnology industry.
- The development of a country's biotechnology industry is characterized by its history, national institutional context, and institutionalized patterns of corporate behavior.
- There is no single prescription for developing a successful and competitive biotechnology industry.
- As healthcare spending rises, healthcare technology payers will likely demand tools to determine how best to allocate their budgets.
- New business models have emerged in the pharmaceutical industry in response to changes in the healthcare field.
- External collaboration by pharmaceutical firms may transform the industry.
- A shift in perceptions is needed to make biotechnology and pharmaceutical innovations more accessible to a greater part of the population.

A CULTURAL PERSPECTIVE: CHANGES IN GLOBAL HEALTHCARE ENVIRONMENTS AND CHUGAI'S STRATEGY

Contributor: Mr. Osamu Nagayama, Chairman & CEO, Chugai Pharmaceutical Co., Ltd.

Overview: Achieving universal healthcare coverage and addressing unmet medical needs are among the key issues facing the world in the first half of this century.

By 2050, the world population will reach 9 billion people of which around 22% will be over 60 years old. The pharmaceutical industry has been donating drugs to address problems of access to medicines in Africa and regions of Asia, but this is not a long-term solution. The industry must consider how to change or improve the situation by achieving universal healthcare coverage, with greater capacity building and technology transfer. When universal coverage is achieved, a huge market is created. The creation of a universal health system in Japan, with premiums assessed based on levels of income, has achieved a useful distribution of wealth with positive results for society, business and individuals. Even more pressing is the creation of drugs to treat as yet untreated tropical diseases. This will soon become the overriding issue for the industry. Meanwhile, the industry faces many other challenges, including increasing research and development costs, declining success rates for new



drugs, and changing disease structures. Current estimates are that US\$2.2 billion is now spent to develop one successful product, factoring in the costs of failures, with required annual research expenditure levels expected to rise even more. This will require creative approaches that are not yet fully understood.

Effectiveness of medicines will increase through stratification of patients by biomarkers. The new challenge is personalized healthcare to move from a situation in which around 60% of drugs are wasted due to not being effective for the patient, to stratifying patients by biomarkers so that the patient's responsiveness to a drug can be identified in advance, improving the compliance rate, or the degree to which a patient correctly follows medical advice (patients tend to not correctly take medicines if they suspect that their physician is merely guessing at its efficacy). Products and services must be developed with a focus on higher value, through biological and molecular targeting drugs.

Key takeaways:

- The pharmaceutical industry must consider how to change or improve the situation by achieving universal healthcare coverage, with greater capacity building and technology transfer.
- The overriding issue for the industry will soon be the creation of new drugs to treat as yet untreated tropical diseases.
- The effectiveness of medicines will increase through stratification of patients by biomarkers.

PART 3

Challenges: Who Pays for Healthcare and How is it Supplied?



ach country has to answer the questions of who pays for healthcare and how it is supplied. The major finding of this part is that there exists no perfect combination of public and private financing. The situation, and therefore the solutions, will be different according to economic evolution, cultural background and patient needs in each region. Moreover, situations and solutions will change with time.

CAN HEALTHCARE CONTINUE TO GROW AS A SHARE OF THE ECONOMY WITHOUT UNDERMINING FISCAL STABILITY?

Contributor: Ms. Yuki Murakami, Health Economist & Policy Analyst, Organization for Economic Cooperation and Development (OECD), Paris

Overview: The burden of healthcare spending shows an increasing trend and governments need to address health sector productivity, a focus on prevention, and the appropriate balance of public and private sector healthcare in order to achieve long-term sustainability.

ealth spending is likely to continue to grow as a share of the economy, requiring improvement of value for money, reallocation of public funds from other areas, an increase in private funding, or in all likelihood some combination of all of these. The growth rate of health spending exceeded the average annual growth rate of the whole economy in almost every country in the world between 2000 and 2009. Improving health sector productivity can dramatically change the fiscal outlook of a national economy. To gain efficiency and fiscal sustainability, finance ministers wish to reduce hospital expenditures and pharmaceutical costs even though this does not correspond with the reality, which is that hospital spending is increasing even while spending on prevention has fallen.

In this light, careful attention should be given to the best combination of public and private healthcare service. Private health insurance markets have theoretical advantages including expanding individual choice, and spurring innovation and flexibility, but there are associated risks such as higher administrative costs and risk selection. More effective cost sharing can be achieved by specifying selected services for private coverage, and better analysing cost effectiveness to assess whether a new service or drug should be funded, and if so by whom. Taxes also have a role to play as an effective tool to improve health, although the fact that it will not be a major source of revenue should be kept in mind. "Sin taxes" are increasingly being used by OECD countries, targeting lifestyle choices that affect



productivity and employment outcomes. The arguments for using taxes to attain public health objectives are particularly strong for tobacco products and alcohol.

Key takeaways:

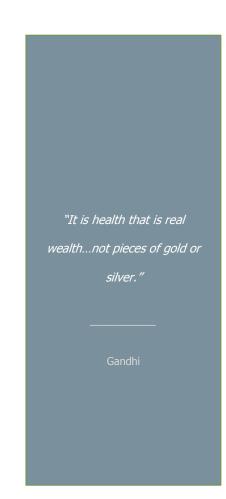
- Healthcare expenditures are growing as a share of government budgets.
- Careful consideration should be given to the most effective combination of public and private healthcare services.
- Sin taxes can be effective in improving overall health, although they cannot be considered a major revenue generator.

CHALLENGES IN MANAGING HEALTHCARE: WHO PAYS FOR IT AND HOW IS IT SUPPLIED?

Contributors: Professor Wen Chen, School of Public Health, Fudan University Professor Bernd Helmig, University of Mannheim Business School Ms. Yuki Murakami, Health Economist & Policy Analyst, OECD Dr. Alberto Jose Ogata, President, Brazilian Quality of Life Association Professor Shigeru Tanaka, Keio Business School

Overview: While there are certain common issues such as funding limitations, availability of skilled human resources in rural areas and moral hazard related to free healthcare access, measures taken to address the issues must be appropriate to the situation in each country.

Health systems are dynamic and each economy will try to establish a system that is appropriate to the local context and meets and addresses local needs and values. Much can be learned from OECD countries but it must be understood that measures are contextdependent. Chile and Mexico are part of the OECD, but share the same problems of fragmentation as Brazil and Latin America as a whole, and therefore a regional scheme should be considered to cooperate in addressing their common issues. There is no blueprint of an ideal healthcare system, but good systems are characterized as having a vision and a long-term strategy. They build consensus, achieve synergies, and demonstrate openness to cooperation between the public and private sectors. In addition, there is no free system, as everyone is paying in some way through tax contributions, either directly or indirectly.



Overutilization may occur with access to free care services, and therefore a small cost-sharing element is useful as a way to keep this to a minimum. Characteristically, there is a higher probability of overuse in cities where there are greater resources. A higher concentration of people in cities naturally leads to both a greater absolute number of locations where healthcare can be obtained and a relatively shorter



geographic distance between where consumers live and where healthcare services are provided. Accordingly, people in cities are far more likely to request medical services on impulse or for relatively trivial complaints.

China provides a useful case study, with cost increases, socioeconomic inequalities and rising expectations for healthcare constituting major issues to be addressed. The main problems experienced by China are cost increases exceeding GDP growth, and inequalities in healthcare across regions and socioeconomic groups. Healthcare expectations are also growing, despite downward pressure on costs. Universal health insurance coverage was achieved in a very short period in China, but there is still much to be done in terms of extent of services. One area to be tackled is how to integrate different health insurance schemes to achieve equality in services among the different programs. There is also an effort to define the essential healthcare package that all regions should provide.

Brazil faces a major challenge in that insufficient government funding is resulting in incomplete health service offers. The constitution of Brazil recognizes health as a right of all citizens, which is the basis of a unified health system that provides universal free healthcare entirely funded by tax revenues. However, the public system is underfunded by government, resulting in insufficient services. The story is not entirely negative, however, and success stories can be seen in Brazil's very efficient program of vaccination covering the entire country, and a very good program for HIV/AIDS offering free treatment for the whole population which has resulted in highly effective control of the epidemic.

A key to generating resources to meet the requirements of effective healthcare is to balance public and private sector stakeholdership in order to stimulate competition. In service delivery, China relies heavily on public health institutions so there is little competitive environment. China's solution is to try to develop the private sector to increase the efficiency of the healthcare system. Moreover, the patient should serve as the captain of the system, which implies that there should be some degree of market orientation, with liberalization and competition aspects significantly involved.

Finally, in larger countries such as China and Brazil, problems are often born through a lack of professionals in some areas. This may require relocation of human resources. Recruiting professionals to rural areas is often not sustainable however, as turnover may be high – and when institutions do not have knowledge of each patient, it is difficult to effectively provide high-impact services for chronic diseases. In the case of China, the country addresses this issue mainly by transferring staff from the central government to local governments.

Key takeaways:

- Measures to improve a country's health systems must be relevant to the situation in each country with success factors characterized as having vision and durability, as well as synergy and cooperation between the public and private sectors.
- A degree of cost-sharing can be effective in reducing overutilization.
- An appropriate balance of public and private sector healthcare can stimulate competition, resulting in the improvement of the overall system.
- Lack of skilled human resources in rural areas can be a significant issue in larger countries.



STAKEHOLDER ROLES: ALL POWER TO THE PATIENTS?

Contributors: Dr. Eishu Hai, CEO, Medixfirm Co., Ltd. Professor Bernd Helmig, University of Mannheim, Business School Mr. Eisuke Suzuki, CEO, Medical Insight Company Professor Michael Woywode, University of Mannheim, Business School

Overview: Better health outcomes can be expected when the focus is on patients' perception of control, effective communication of information, and assistance in the selection of healthcare providers.

What role do patients play in the decision-making process, and how can they be made to feel more in control of their treatment? The evidence speaks for itself: when people experience a high degree of perceived control, they initiate action, exert more effort, and their emotional state is improved. As a result, outcomes including healthy lifestyle behaviors and a higher overall quality of life are improved as well. On the other hand, when people perceive control as impossible, they become passive, fearful, pessimistic and distressed.

A theoretical framework based on a review of hundreds of journal articles provides several useful guidelines for policymakers. For example, managers designing health policies should utilize information provision and dissemination techniques, which are powerful tools that enhance health-related control perceptions. Patients need power most in the case of diseases which are chronic and severe, such as cancer or HIV, as the patient's journey can be a long process starting from choice of provider and continuing through to daily life management and possibly end-of-life care. Problems for patients in the choosing of a provider include a large number of options and no clear logic for selection. New technology, including social media, may not actually assist, and in fact may constitute a hindrance as there is often misinformation and bias. Consequently, some way to assist with the matching of patients and doctors is required.

Effective communication is often the key to preventing or solving misperceptions and the medical field is no exception. Good communication skills are directly linked to good medical quality. In Japan, for instance, some patients, fearful of being in control, feel that doctors should make the final decision in which case information must be provided and a decision taken for them. In this case, the difficulty is ensuring that the patient continues with their treatment program, which requires empathy to ensure that the patient is convinced of the decision. The gap between educated patients and uneducated patients is also becoming wider, and therefore healthcare providers need to be able to deal with a wider range of situations. Good communication between doctor and patient is fundamental to good medical quality and outcomes. Doctors may want to communicate more, but due to large numbers of patients and administrative overheads, "three hours of waiting for three minutes of service" is unfortunately all too common. Healthcare providers have a responsibility to provide explanations using non-technical vocabulary, but evidence shows that there is normally no training given in this area. Subsequently in Japan, an experiment has been undertaken for education supporters from the community to help young healthcare professionals to better understand communication and the skills involved.

Key takeaways:

- Perceived patient control leads to better outcomes.
- Medical service providers should consider health-related control perceptions when designing service processes, and patients require greater assistance in provider selection.
- Effective communication skills for medical staff are fundamental to good medical care.



PRODUCTIVITY AND COST: WHAT DO WE PAY FOR AND INVEST IN?

Contributors: Mr. Mitsuru Kikuchi, Chugai Pharmaceutical Co., Ltd. Professor Hiroshi Nakamura, Keio Business School Professor Gérard de Pouvourville, ESSEC Business School Professor Jonathan Skinner, Dartmouth College

Overview: Advancements in technology have contributed to increased productivity in the healthcare sector. They have also led to a significant increase in costs. To balance "productivity" and "costs," society must decide what it will pay for and how it will invest its resources.

Public and private payers alike attempt to assess innovations in health according to perceived value for money. However, the choice of how to measure costs and benefits has an obvious impact on results, for these results of assessing costs and benefits are not only based on what is measured, but also on what is not measured. A major difficulty, therefore, is how to take into account any benefits and costs beyond the healthcare system.

Many would focus on direct medical costs but may not agree on how to value the cost of appliances, time spent by the patient because of treatment delivery, or the opportunity costs of caregivers. What is the potential cost of illness on domestic or salaried work? We can measure the impact of sick leave if we have good information systems, but measuring productivity in the workplace when you are ill (i.e., presenteeism) can be more challenging. How do you estimate the costs for society of having, for example, a young population being partially incapable of working?

Services which are covered by different payers, such as institutions that pay for healthcare, rehabilitation, social services, or compensation, are not usually involved in decision making on coverage. This leads to the fact that the healthcare industry may not be investing in the right products or services. There is room for innovation in appliances and devices, but this raises the question of funding such innovations. Most innovations are poorly covered or are covered by other payers. The fact that policymakers generally love innovation hides the uncomfortable question of 'Can we actually afford – and do we actually need – all this innovation?' Japan, for example, is facing serious financial issues it has to confront to keep its healthcare system from imploding. To cite Ayako Mie in The Japan Times (August 23, 2013): "Japan has been resorting to patchwork reforms over the past decade to prevent the healthcare system from collapsing as a rapidly graying society demands more funds from an ever-shrinking pool of tax revenue."

The balance between new technologies with uncertain or low benefits and technologies that are cost effective and benefit a large number of patients is a huge challenge for governments and insurance companies. Innovations that are expensive to purchase or maintain can cause pressure to recoup expenditures, not only significantly impacting costs but diagnoses as well. Expensive technology with minimal benefits is, in the long term, not a good business model and typically the things that save lives are not the things that cost the most. As Robert Langreth forwarded on Bloomberg News (March 26, 2012): "Radiation oncologists have gotten themselves into a trap... They've built very expensive centers, and the only way they can recoup costs is to treat lots of prostate cancers. A lot of men are going to be channeled into proton therapy, not necessarily to their advantage, at a very great cost."

Information technology may provide some of the answers to the issue, for in order to measure benefits against costs, information systems are crucial. Information is required not only for cost effectiveness, but to create good public health policies. Good information on resource use is needed to have good



management of hospitals and services. If governments want good policy, they have an obligation to invest in information systems.

Key takeaways:

- The choice of how to measure both costs and benefits has an obvious impact on results.
- Most policymakers agree on the mechanics of covering healthcare costs and treating patients, but do not necessarily agree on how to value the costs of these services.
- Costs borne by institutions other than employers due to illness are not usually taken into account when determining what coverage to provide.
- The healthcare industry is often not investing in the right products or services, and this is leading to unsustainable growth in healthcare costs.
- To measure benefits versus costs, information systems are vital.

WHAT DOES A BETTER HEALTHCARE SYSTEM LOOK LIKE?

Contributors: Professor Wen Chen, School of Public Health, Fudan University Ms. Yuki Murakami, Health Economist & Policy Analyst, OECD Professor Shigeru Tanaka, Keio Business School

Overview: Most countries seek to provide universal health coverage (UHC) to their citizens. However there are more components to UHC than simply access to healthcare in the event of an illness. One of the most important of these is financial risk protection. Furthermore, even if a population is universally entitled to healthcare, actual health coverage can be impeded by a variety of factors. These also need to be addressed. While public financing is essential for the provision of UHC, healthcare continues to grow increasingly expensive. Following the 2009 global financial crisis, growth in healthcare spending has slowed dramatically in many countries, with public spending particularly hard hit. As such, governments have had to reassess the level of benefits provided and the payment systems involved.

U HC begins with equal access to care irrespective of ability to pay. In the OECD countries, public coverage plays a significant role to ensure UHC, as it is very difficult if not impossible – as the current debate in the U.S. illustrates – for private coverage alone to accomplish this. In addition to immediate care for illness and injury, access to prevention, promotion, and rehabilitation is also necessary. UHC should also provide a level of financial risk protection to prevent excessive out-of-pocket (OOP) payments or impoverishment due to unexpected illness. There is also a need for an adequate supply of health workers with the right skills in the right locations, as well as high quality healthcare services with appropriate information systems and safety regulations for pharmaceuticals and medical devices.

Although almost all OECD countries have achieved UHC for basic needs, gaps between healthcare entitlement and actual health coverage still remain. Under a full UHC system, the entire population of a given area would be entitled to disease prevention, healthcare services, medical equipment, medicines, and possibly other benefits such as long-term care. However, in practice actual healthcare coverage is dependent on a number of factors including availability, social barriers to healthcare utilization, whether a condition is mild or severe, and the affordability of optional, premium, or experimental goods and/or services. One might expect that out-of-pocket and catastrophic spending (which can be reduced with good prevention measures) in OECD countries is relatively low in all cases. However, OECD data



shows that in reality there are unexpectedly high levels of both OOP and catastrophic costs in some countries. This suggests that more needs to be done, both in terms of preventative medicine as well as providing better coverage, in practice with respect to the healthcare entitlements that UHC systems provide in theory.

Despite strong growth in health expenditure in OECD countries leading up to 2009, there was a large drop in growth following the global financial crisis. This has primarily been driven by cuts in public spending on health as governments re-examine and amend the depth and breadth of the benefit packages they provide. These cuts have produced significant spending reductions in all sectors, especially pharmaceuticals and preventative medicine. In response to cuts in public spending and healthcare packages, there has been somewhat of a shift to private financing, with private health insurance making up some of the difference.

Looking at the countries hit hardest by the most recent financial crisis, OECD data shows that countries where public healthcare spending is largely funded by general taxation had to reduce or cut services – or find alternate or emergency sources of income to maintain services – more than in those countries where spending is funded to a greater degree by social insurance. Overall health expenditures actually contracted in some countries, with Greece and Ireland suffering the heaviest cutbacks. On the other hand, health expenditures in Israel, Japan, and Korea were largely unaffected or even continued to grow.

Compared to countries such the U.S. and Japan, China has lagged behind in terms of the health status of its population, healthcare infrastructure and workforce, and health expenditure. Furthermore, China's health system has been characterized by institution-based delivery with many public hospitals and institutions incentivized to promote high-tech services and pharmaceutical sales in the interest of revenue generation. Additionally, the government's social health schemes have played a limited role of ensuring that purchasing on behalf of the insured is conducted in a strategic manner.

The most urgent issues in China that need to be addressed are unaffordable access resulting from rising healthcare costs, inequalities in healthcare across regions and socioeconomic groups, and growing expectations among the population. In answer to this, the government has sought to guarantee universal access to basic healthcare for the entire population and effectively reduce the direct medical cost burden on the average citizen. There has been increased health expenditure in terms of public health services, medical education and research, infrastructure development and subsidy provision for public health institutions, and the co-financing of urban and rural insurance schemes with a focus on the urban unemployed and rural farmers. As a result, almost 100% of the population is covered by universal health insurance and hospitalization expenditure reimbursement is close to 50%. In addition to the mobilization of resources on the part of the government, the development of social and private insurance schemes has also helped increase personal contributions to healthcare. Other successful reforms have included the establishment and development of incentives such as service purchasing mechanisms, and assessment of quality and efficiency by public hospitals and suppliers. In addition, new technology has been introduced and promoted, helping to raise the quality of healthcare.

Even when universal healthcare has largely been achieved, it is often difficult to provide healthcare coverage in a sustainable manner to informal workers and migrants, and in rural areas. Furthermore, voluntary enrolment in public insurance schemes may lead to adverse selection issues. A further major issue is difficulty in achieving equality in financial risk protection. There continue to be significant variations in contribution level and benefit packages among different schemes. Moreover, medical expenditures have risen rapidly as a result of the fee-for-service method of medical care payment, and the failure to integrate primary and tertiary care. As such, further reforms in payment and services delivery are required.



Finally, care for the elderly is a growing concern in many countries. In China and Japan in particular, the ageing of society is progressing rapidly and elderly care is an urgent challenge. In China, there is currently no distinction between medical services and elderly care, with the elderly receiving care both at hospitals and community health centers. As such, China is now trying to follow the example of other countries and is developing long-term care insurance and establishing special institutions for non-clinical elderly care. As for the OECD, in most countries medical services are separate from long-term care services, and many member countries have established their own funding schemes and services to provide long-term care services to the elderly.

Key takeaways:

- Universal health care (UHC) is not simply a matter of universal access to healthcare: it should provide a level of financial risk protection, adequate numbers of skilled health workers, effective information systems, quality services and effective safety regulations.
- There is often a gap between healthcare entitlement and actual health coverage.
- Growth in healthcare expenditure declined significantly following the global financial crisis.
- In recent years there has been an urgent need to reform China's health sector. The Chinese government has made progress in achieving universal health insurance coverage and in improving equity in financing and service utilization.
- Elderly care is a growing concern for many countries. Initiatives such as long-term care insurance and establishing special institutions for non-clinical elderly care are increasing in popularity and importance.

A CULTURAL PERSPECTIVE: JAPAN AT THE FOREFRONT OF HYPER-AGEING SOCIETIES

Contributors: Mr. Genki Oka, Partner, McKinsey and Company, Tokyo Office

Overview: While the phenomenon of ageing societies often provides a foundation for debate on increasing costs and strain on meeting employment requirements, business and society should not forget that an ageing population is also an opportunity that is multi-faceted in nature.

All of the participating countries in the Council on Business & Society's 2014 Tokyo Forum are Ageing societies – even Brazil, where by 2050, 30% of the country's population will be at least 60 years old. All of the three Forum themes – Healthy employees, Healthy organizations; Technology and Management Innovations in Healthcare; and Challenges: Who pays for Healthcare and How is it Supplied? – are powerfully influenced by this unprecedented socio-demographic phenomenon.

By focusing on Japan – the country at the forefront of the world's hyper-ageing societies – best practices can be drawn and many lessons learned that can be used to address issues in other countries. Currently, 1 in 4 people in Japan are over 65 years of age. By 2030 this will rise to 1 person in 3. Japan is expected to face a serious labor shortage in terms of sustaining GDP growth, leading to an increasing war for talent, with the ageing of the workforce leading to increasing leaves of absence due to illness. Businesses see this as both an issue they need to address – and as an opportunity. The human resource (HR) implications are that companies need to value and utilize the contribution of every generation, promote the exchange of expertise and experience, and consider innovative HR policies. Advanced companies have already evolved tailoring models to retain talent.



For the healthcare industry, the growing elderly population will mean increased patient requirements including care services and pharmaceutical solutions. However, the increasing number of elderly also creates significant opportunities to address currently unmet and future needs. These needs include home healthcare, day-care services, and monitoring services to ensure that the elderly are, for example, taking medications property. Compliance with physician instructions and adherence to healthy lifestyles is highly problematic with many elderly persons. Especially in the case of single-person households, the very elderly often do not correctly follow their medication (or other medical) instructions, or completely forget or refuse to take their prescribed medications or medical services. All of these problems are already very common in Japan, and their prevalence is increasing.

In daily life consumption, emerging themes include: relieving anxiety and loneliness, effective use of time, and alternatives to maintain youth. Successful products and services targeting the elderly have unique aspects, such as a shoe design that prevents falls and is easy to put on, or a housekeeping services company doing chores and talking with elderly customers.

Key factors to be taken into account include: Do not label seniors as old people. Tailor to individual needs in detail. Bring creativity with sense of security and contribute to forming a community on their behalf. Always keep in mind that these clients have the potential to become extremely loyal repeat customers.

Key takeaways:

- At the forefront of hyper-ageing societies, Japan provides a telling case study for its reactivity in terms of solutions and mindset towards the elderly.
- Ageing society can be seen as an opportunity rather than a burden, with many new requirements open to cater for service and associated healthcare solutions.
- Elderly people are not "old" except in a relative sense and might certainly be viewed as potentially "young" (as in "new") consumers": customers that have specific needs requiring tailored solutions and who are contributors to building a stronger and more sharing society.



CONCLUSIONS



ealth is both good business and a moral imperative. Business schools must educate leaders on why good health is a good business model, and instill in students a culture of health as a responsibility on a par with corporate governance, financial propriety, and corporate social responsibility. Dr. Axel Baur, Senior Partner at McKinsey & Company, recommends that all companies take the time to identify the needs of their employees both as individuals and as groups – and subsequently invest in creating uniquely tailored programs that address the specific requirements of individuals as well as meet the overall needs of groups comprised of employees with similar issues.

Healthcare is not only about sustainability, but also about the hard numbers. There is conclusive evidence that with healthy employees, productivity increases, employee turnover is reduced and the total quality of the workforce rises tremendously.

- Global best practices are developing in health and healthcare. Business schools can be a platform to promote and disseminate best practices that health systems around the world may wish to adopt as they see fit.
- Management systems have a significant impact on employee health. Many systems reward overwork. Financial incentives tend to accrue to a small number of individuals who are evaluated as providing more value to an organization than the rest (the so-called "Winner Take All" model). Organizational effectiveness must be re-evaluated in light of the evolving understanding of health and productivity, and the importance of teamwork, information sharing, and group recognition.
- There is a need to re-define and focus on "health" in a holistic sense that is aimed at positive outcomes for individuals, organizations, and societies rather than merely on "healthcare" which traditionally focuses on treatment rather than prevention and is increasingly medically ineffective and financially unsustainable.



- IT and health issues are converging. There are huge, currently unmet needs for crossdisciplinary awareness, programs, and experts.
- The business of healthcare is about how to sustainably manage what societies need and want. Ways to better measure and analyze inputs and outcomes are required.

Specific Conclusions from the three parts

Part 1: Healthy Employees, Healthy Corporations

The business case for corporations to care about employee health is a strong one: presenteeism, absenteeism, direct medical care costs, and need to attract and retain the desired workforce all contribute to the rationale. Mental health of employees has become a major issue that corporations must address. Evolution of the nature of work itself and of management practices, particularly performance management systems, has led to an increase in psychosocial disorders which have so far been somewhat ignored or downplayed by corporations and society. Business schools should include health issues of employees in their curricula and work to identify best practices and increase awareness of the strategic importance of these issues.

Part 2: Technology and Management Innovations in Healthcare

The pharmaceutical industry will almost certainly have to change its organizational style because current price increases are becoming too great for customers to bear. Drug companies have to find new ways of negotiating and sharing risk with stakeholders. Biotech organizations can be an alternative to internal research and development, but they have to find the right balance between public funding and venture capital. There is a need to shift from a "novelty orientation" to a "value orientation." The novelty of the innovation is no longer as important as the outcomes it produces. Technology is a tool. The focus should not be on the technology itself, it should be on the results for the patients. Healthcare information systems should connect stakeholders such as physicians at hospitals and local clinics, and they should be made accessible to patients with acceptable privacy considerations taken into account. Healthcare technology should follow progressive advancement, from administrative support, data integration, and workflow support to a comprehensive set of application tools – and should focus on value creation. The value of healthcare technology is not only providing a competitive advantage, but also being able to serve a segment target faster, better, and more cost effectively (personalized care). Implementation should target measurable outcomes. No technology should be implemented for its novelty alone.

Part 3: Challenges in Managing Healthcare: Who Pays for Healthcare and How is it Supplied?

The key drivers of healthcare spending are technology, government policies and regulations, and population demographics. Health spending is likely to continue to grow as a percentage of GDP. Suppliers of healthcare services have to cope with this new situation by implementing customer-



oriented strategies in order to survive in the long term. New forms of service delivery such as telemedicine and online diagnosis can now be realized due to advances in technology. The perfect healthcare system may not exist. There is almost certainly no one best healthcare solution that can ever be implemented globally. For this reason, it is important to continue discussions, share ideas, and continue testing individual "best" solutions so that the range of global best practices will expand.

Final considerations

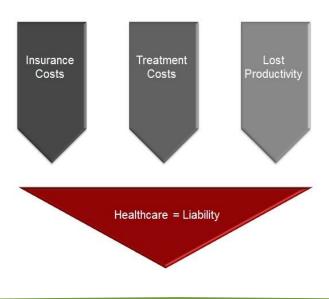
The preamble to the Constitution of the World Health Organization, adopted by the International Health Conference in New York in June 1946 states: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." As an indication of the strength of this definition, it has never been amended. Since that time, however, the world's population has tripled to 7.2 billion people. The United Nations reported in April 2010 that comparing the periods 1950-1955 and 2005-2010, global life expectancy rose from 47 to 68, and the proportion of deaths at age 60 or over – when healthcare costs are at their highest – rose from 26 percent to 54 percent.

As the ferocious debate currently raging in the United States vividly demonstrates, systems designed in the second half of the 20th century are incompatible with 21st century needs, expectations, and realities – socially, technologically, and financially. And as noted by one of the Forum contributors, Japan, host country for the 2014 Forum, can no longer be considered an "ageing society:" With more than one person in four over the age of 65, Japan is a prime example of an "aged society" where existing models of healthcare are incomplete, obsolete, and unsustainable.

The conclusions of this White Paper, directly inspired by the Council on Business & Society's 2014 Forum, can be captured in the below two images and in just a few words:

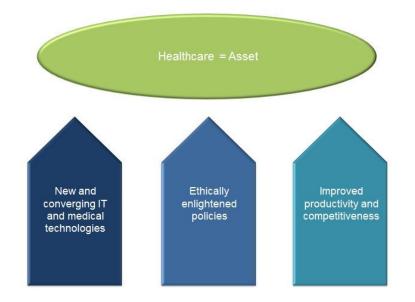
Healthcare as an asset - not a liability

The existing paradigm considers healthcare a liability. This model has no upside. Healthcare is the sum of negative inputs, including insurance costs, treatment costs, and productivity lost from physical and mental illness:





The new model views healthcare as an asset. Healthcare is a collection of positive outcomes, including improved productivity and competitiveness, new and converging IT and medical technologies, and ethically enlightened policies:



The question is not: "Do healthcare systems need reform?"

The question is: "How should everyone constantly re-examine health concepts and implement systems to create the best outcomes in sustainable ways?"

Healthcare may be the ultimate interdisciplinary field of human study.

Healthcare cannot be viewed as only a business, a public service, a technology field, an academic discipline, an ethics issue, a moral duty, a management study, or a matter of every person's most private life. It is all of these – simultaneously.

Excellent solutions will not originate from companies, governments, universities, or not-for-profit organizations. They will only originate from collaboration between all of them.

Some healthcare systems are arguably better than others, but all existing models are categorically inadequate for most present and all conceivable future purposes for the following reasons:

Today's policies are reactive. Decision-makers who are indifferent or constrained until something goes wrong are always, by definition, operating "behind the power curve."

Today's processes are input driven. Results are determined by resources perceived to be available rather than clear-headed visions of what desired outcomes ought to be.

Today's systems are unsustainable. They originated when populations were smaller, lifespans were shorter, information levels were lower, expectations were fewer, and economic growth was viewed as infinitely sustainable.

- The first indications of "Global Best Practices" are already beginning to form, and future



solutions will incorporate the following:

Tomorrow's policies will be pro-active. Instead of crisis management, treatment, secrecy, and

patient behavior reform, future policies will emphasize anticipation, prevention, information, and education.

Tomorrow's processes will be output driven. Nations will create and managers will be held accountable to implement a vision of healthy individuals, healthy companies, and healthy societies.

Public and private capital, information technology, medical technology, managerial ingenuity, a strong sense of ethical responsibility, and all other available resources will be aligned to realize that vision.

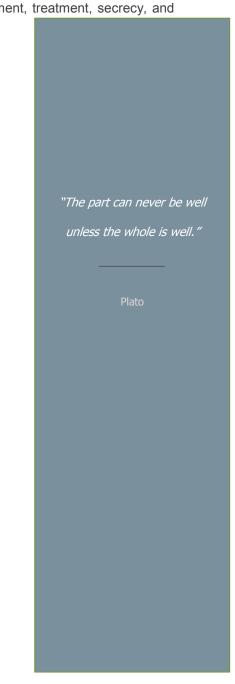
Tomorrow's systems will be sustainable. They will be evidenced-based and will not rely on wishful thinking or procrastination. Systems will be focused on future outcomes rather than current budgets, and incorporate the ability to make mid-course corrections and consider worst-case scenarios.

Successful new healthcare paradigms will and must strike a balance between Global Best Practices – which will be highly consistent – and local conditions which will change over time.

The world's cultural, economic, social, political, and religious diversity cannot be ignored.

There will never be a single "one size fits all" model. Healthcare is a moving target. While some strategies will meet the test of time, tactics must be flexible enough for both existing populations as well as needs decades into the future. Many health issues will always be immediate and recognize no artificially imposed boundaries, so the world has no choice but to adapt some form of strategy for the moment – and accept some degree of global cooperation.

As some countries, regions, or areas develop excellent programs, there arise questions and concerns about population transfer. Consumers in one country may travel to another country for the purpose of obtaining better healthcare, in many cases without having invested (e.g., by paying taxes) previously in the country where they are receiving the actual treatment. In larger countries, citizens may even travel domestically for the same purpose. This means that all countries will have to



eventually consider transnational or even global programs. Globalization is likely to ultimately require that all countries adopt some system of universal standards for dealing with business travelers, casual tourism, medical tourism, international medical evacuations, refugees, and the large-scale population transfers that some experts predict is inevitable given global climate change projections.

Business schools are perfectly positioned to take important -- and even leading – roles in crafting healthcare solutions.



Business schools are politically neutral, intellectually independent, and results-oriented. They are also unique in their ability to gather theorists, practical academicians, business leaders, bureaucrats, politicians, and professional policy experts in one room.

Business schools educate future leaders to whom the results of critical analysis can be instantly relayed for consideration and implementation in the real world.

Finally, new healthcare solutions have implications that go far beyond only healthcare:

Healthcare is a universal human need.
It is interdisciplinary and global.
It demands sustainability and cooperation.
It requires commitment to high ethical principles: altruism, fairness, trust, confidentiality, honesty, and integrity.
It requires adherence to critical thinking, evidence-based decision-making, and rigorous

n other words, excellent healthcare solutions have the potential to provide a template for solving or managing other problems. Observable, measurable, real-world improvements in healthcare, especially across borders, can be a model and source of inspiration for improvement in other world issues, such as good governance, social inequality, hunger, natural disasters, and even political conflict. The Council on Business & Society calls on business, academic, and political leaders to work with us, and with others, to help make this vision become reality.

Links:

verification.

Speaker Biographies Council on Business & Society and Supporting Faculty Biographies Forum Event Program Forum 2014 Photographs





Board of Deans













Dean Jean-Michel Blanquer, ESSEC Business School Before becoming Dean of ESSEC, Jean-Michel Blanquer was a professor of public law. He taught successively at the Universities of Paris II. Tours. Lille and Paris III-Sorbonne Nouvelle. He has also served as Director of the Institute for Advanced Studies of Latin America and chaired the Americas Institute. From 2009 to 2012, he was Managing Director of Schools for the French Ministry of Education.

Dean Paul Danos, Tuck School of Business at Dartmouth

Paul Danos holds a B.S. & MBA from The University of New Orleans and received his Ph.D. in Accounting from The University of Texas. He has been Dean of Tuck since 1995, enjoying one of the longest tenures as Dean of a top-tier business school. Widely recognized as a preeminent expert in the field of business education, Danos has served as director of several corporations, schools, and professional associations. Before Tuck, he was Senior Associate Dean at the University of Michigan.

Dean Maria Tereza Leme Fleury

Dean Fleury received her Ph.D. in Sociology in 1981 from the University of São Paulo where she also received a B.A. and M.A. in Social Science. Maria Tereza Fleury is Dean of FGV-EAESP and a professor of international strategy. At present, she is the Director of the Brazilian Academy of Management, the São Paulo Research Foundation, the Euromed Research Council, France, the Council of the Medicine School Foundation, the Editorial Board of RAUSP and of the International Journal of Human Resources.

Dean Xiongwen Lu, School of Management, Fudan University

Xiongwen Lu is the Dean of the School of Management, Fudan University. He has served as Vice President of the Chinese Society for Management Modernization since 2010 and currently serves as a Board Director of the Graduate Management Admission Council (GMAC) and as a member of AACSB Asia-Pacific Advisory Council.

Dean Hirokazu Kono, Keio Business School

Hirokazu Kono has served as Dean and Professor of the Graduate School of Business Administration at Keio University and Keio Business School since 2009. Hirokazu Kono received his Doctor of Engineering from Keio University in 1991. He is a founding board member of the Asia Pacific Industrial Engineering and Management Society (APIEMS), and serves as Deputy Editor of the Industrial Engineering & Management Systems (IEMS) journal from 2008. Currently, he is the President of the Association of Asia-Pacific Business Schools (AAPBS).

Dean Juergen M. Schneider, University of Mannheim, Business School

Juergen M. Schneider was appointed Dean of the University of Mannheim, Business School in 2010. Before, he was the CFO of Bilfinger SE, an internationally active construction and services group with more than 58,000 employees. Besides his position as a Dean, he chairs the supervisory boards of two German companies.



Council on Business & Society

Executive Team

Professor Christian Koenig Executive Director, Council on Business & Society; Associate Dean for Strategic Partnerships and International Relations, ESSEC Business School

> Ms. Tessa Chatagnon Coordinator, Council on Business and Society; International Projects Coordinator, ESSEC Business School

> > ESSEC Business School

Avenue B. Hirsch, BP 105 F-95021 Cergy Pontoise Cedex France Tel: +33 134 433 039 Tel: +33 134 433 102 Fax: +33 134 433 300 E-mail: koenig@essec.edu E-mail: chatagnon@essec.edu

Member Schools

ESSEC Business School (France) Council Communication Team Coordinator Ms. Danielle Steele: steele@essec.edu +33 134 433 655 Press Relations

Ms. Luisa Maschio: maschio@essec.edu +33 134 433 957

FGV-EAESP (Brazil) Ms. Patrícia Perim F. Santos: patricia.perim@fgv.br +11 379 942 80

Keio Business School (Japan) Ms. Risa Motomura: risa.motomura@kbs.keio.ac.jp +81 455 642 020

School of Management, Fudan University (China) Ms. Elsa Huang: hzhuang@fudan.edu.cn +86 212 501 1408

Tuck School of Business at Dartmouth (USA) Ms. Anne Culp: Anne.culp@tuck.dartmouth.edu +1 603 646 2733

University of Mannheim, Business School (Germany) Ms. Liane Weitert: weitert@bwl.uni-mannheim.de +49 621 181 3657

ESSEC

FG\





BUSINESS SCHOOL

COPYRIGHT

Health and Healthcare at the Crossroads of Business and Society

ISBN: 978-2-36456-110-6

The information and contents of this White paper are the property of the Council on Business & Society and may not be reproduced, copied, edited or used without the prior agreement of the former.

Produced by ESSEC Publishing for the Council on Business & Society. ©2014 Council on Business & Society