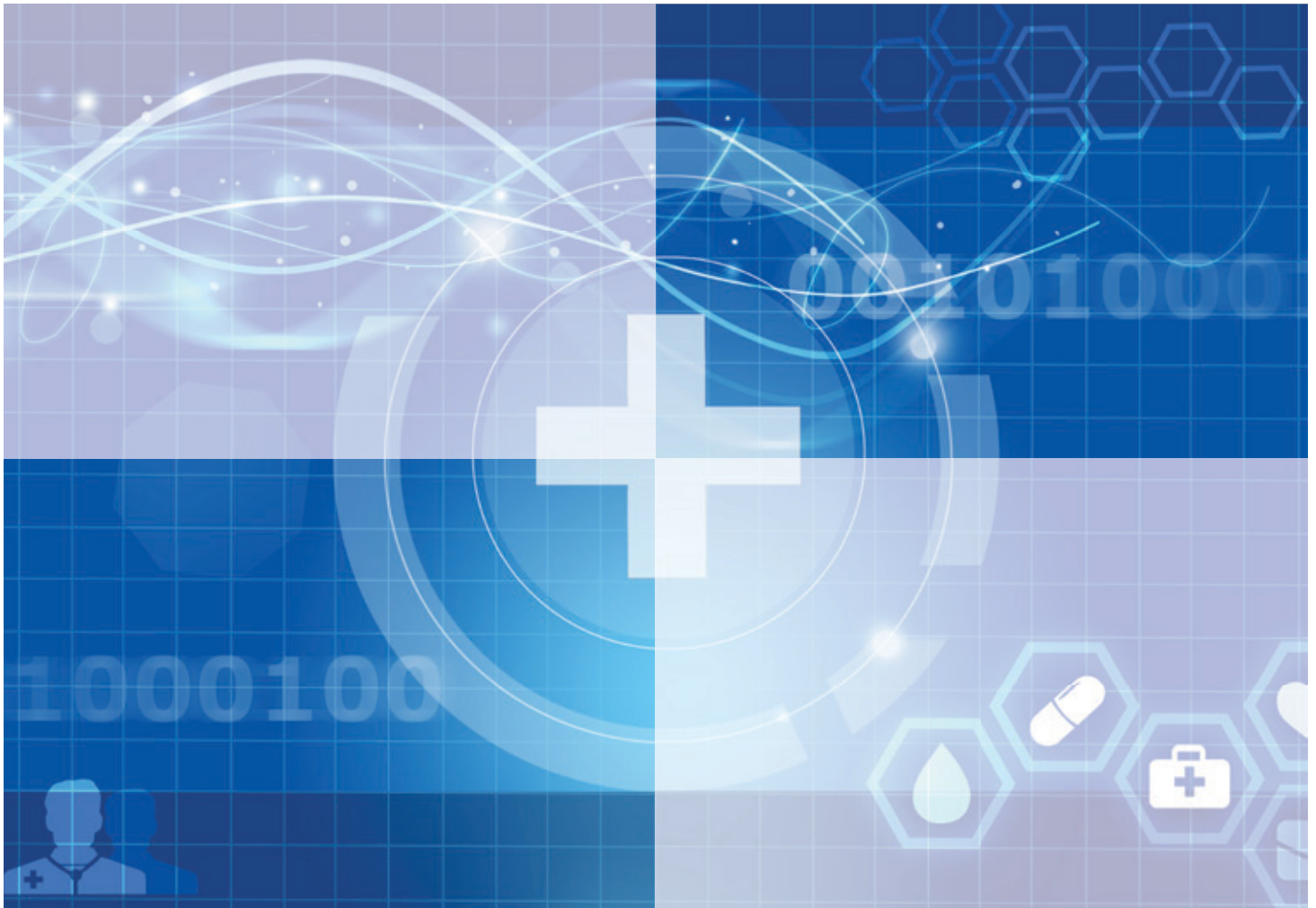


Industry Agenda

Global Health & Healthcare Governors Meeting 2015

March 2015





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REF 170215

Message from the Co-Chairs



Joseph Jimenez
Chief Executive Officer
Novartis
Switzerland



Bernard J. Tyson
Chairman and Chief Executive
Officer
Kaiser Permanente
USA

Dear Governors,

It was a privilege to co-chair the Governors Meeting for Global Health & Healthcare 2015. We look forward to continuing the work with you and further shaping the industry agenda by developing concrete and actionable steps.

The level of participation and quality of discussion at this year's Governors Meeting underscored the value of coming together as an industry.

Based on the discussions, we identified six key driving forces, included in the transformation map, that will shape the future of healthcare:

- Consumer health and well-being
- Health economics (including value-based healthcare delivery)
- Health governance
- Innovation and technology
- Pandemics
- Non-communicable diseases (including the economic value of prevention)

In addition, the debate on the value of healthcare needs to be advanced, and attention should be moved from a disease-focused, transactional health system towards an integrated, outcome-focused, risk-benefit sharing model along the continuum of care. Healthcare can be improved and the benefits passed on in a continuous cycle of providing more effective care at lower cost and reinvesting the savings into long-term health measures and research.

Finally, we agreed to create an exchange platform for staff across our companies and we look forward to your full support in this.

We will also continue to integrate the work on the "Future of Healthy" and the "Health Systems Leapfrogging" projects, with a focus on refining the ecosystem of a healthy life and on delivering a model for an optimal health promotion system along the continuum of care.

We will continue to collaborate closely, with increased digital interaction through the use of social media and the Forum platform, TopLink. We will relentlessly pursue opportunities to learn and to network and we will identify where the Global Health & Healthcare community can best have an impact thanks to your continued involvement and to the work of your strategy officers.

Thank you for your commitment and contribution to this industry group. We look forward to your continued engagement as thought leaders and partners with an ambitious and action-oriented agenda.



| Executive Summary



Arnaud Bernaert
Senior Director, Head of Global Health
& Healthcare

The value of healthcare, and hence the acceptable pricing of cures, does not have a unique definition. It can be the value to society (growth and wealth), to the individual (desire to be treated at any cost), to governments (share of budgets), or to the insurer (economic return on clinical innovation). It does not even have a unique time horizon for measurement. It may be weeks for an end-of-life patient, a year for the payer or the care delivery institution, or the length of a mandate for an incumbent politician. These dimensions and health system stakeholders need to be taken into account when addressing change and the alignment of incentives.

The 45th World Economic Forum Annual Meeting, which took place from 21 to 24 January in Davos-Klosters, Switzerland, convened under the theme “The New Global Context”. This theme reflects the period of profound political, economic, social and technological change the world has entered, and which has the potential to end the era of economic integration and international partnership that began in 1989.

More than 2,500 leaders took part in the Annual Meeting 2015, including the heads of 1,000 of the world’s largest and most successful businesses, heads of state or government from the G20 group and other nations, and the heads of the world’s foremost international organizations, as well as leaders from civil society, labour unions, the world’s major religions, media and the arts. The Forum’s New Champions communities – Young Global Leaders, Global Shapers, Global Growth Companies, Technology Pioneers and Social Entrepreneurs – also contributed.

I would like to thank Hari S. Bhartia, Co-Chairman and Founder, Jubilant Bhartia Group, for co-chairing the World Economic Forum Annual Meeting 2015. His leadership and engagement certainly played an important role in the success of the Meeting.

The meeting of the Global Health & Healthcare Governors, which was co-chaired by Joseph Jimenez, Chief Executive Officer, Novartis, and Bernard J. Tyson, Chairman and Chief Executive Officer, Kaiser Permanente, provided a good platform for industry-specific dialogue and for the sharing of invaluable guidance on where the industry should place its focus in 2015. The feedback from the meeting was very positive, with a strong sense that the industry has a shared agenda and that the meeting proved of great value. Moreover, there was a clear will to translate this energy into action during the coming year.

In this regard, we acknowledge the leadership and commitment of Jimenez and Tyson, the Governors co-chairs for 2014-2015, and thank them for agreeing to continue to chair our community in 2016.

The Global Health & Healthcare community is expanding and we would like to welcome our new Governors: Derek Aberle, Qualcomm; Marc Casper, Thermo Fisher Scientific; Jeremy Farrar, Wellcome Trust; Rakesh Kapoor, Reckitt Benckiser; Risa Lavizzo-Mourey, Robert Wood Johnson Foundation; and Satoshi Tsunakawa, Toshiba.

The Forum also thanks all the Governors for their extraordinary support and advice throughout the past year.

We will strive to make 2015 even more successful and we look forward to working with all members of the community to advance the industry agenda, while contributing to improving the state of the world.

Please share this report with your executive teams so that they, too, can experience the spirit of Davos. We hope we have been able to capture the key discussions and outcomes that are of relevance to the Global Health & Healthcare community.

Official Programme

New Global Context

In its 45th year, the World Economic Forum Annual Meeting in Davos-Klosters, convening under the theme “The New Global Context”, offered world leaders an unrivalled multistakeholder platform for health as a central part of sustainable socio-economic growth and a chance to shape the agenda at the start of the year.

Hari S. Bhartia, Co-Chairman and Founder, Jubilant Bhartia Group, India and Co-Chair of the World Economic Forum Annual Meeting 2015, gave two strong messages. Business plays an important role in the creation of livelihoods – only 25% of India’s employed population has a regular job. Strong foundations are needed in the areas of education, employability, innovation and entrepreneurship. For companies to best fulfil their corporate social responsibilities, they should create livelihoods by developing sustainable enterprises.



01: Hari S. Bhartia, Co-Chairman and Founder, Jubilant Bhartia Group, India; Co-Chair of the World Economic Forum Annual Meeting 2015

02: Rich Lesser, Global Chief Executive Officer and President, The Boston Consulting Group, USA; Frans van Houten, President and Chief Executive Officer, Royal Philips, Netherlands; Omar Ishrak, Chairman and Chief Executive Officer, Medtronic, USA; John Noseworthy, President and Chief Executive Officer, Mayo Clinic, USA; Ornella Barra, Executive Vice-President, Walgreens Boots Alliance, Switzerland; Mark Bertolini, Chairman and Chief Executive Officer, Aetna, USA

The Health Programme: 25 Strategic Dialogues

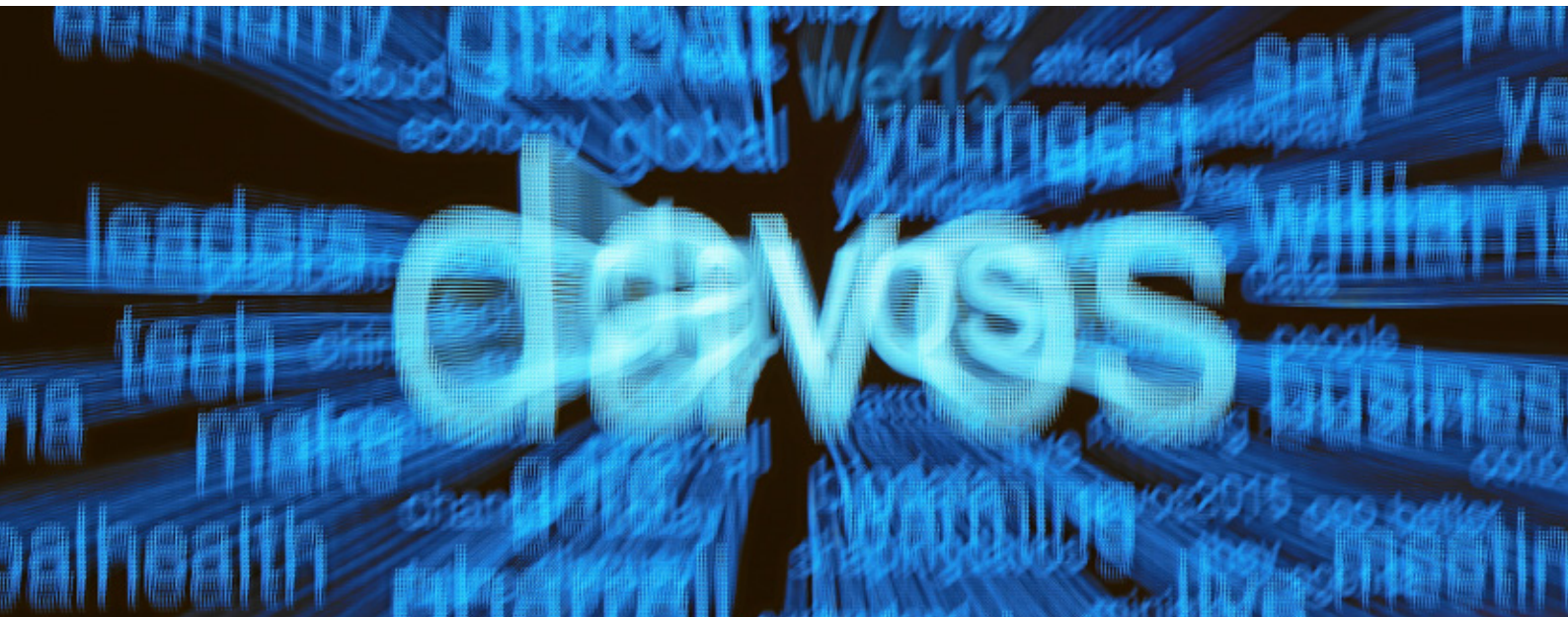
The Annual Meeting 2015 was a time for reflection and actionable responses to the complexity and uncertainty that challenge global and national leaders. With healthcare expenditure accounting for nearly 11% of global GDP, the well-being of the population has a direct effect on business and society.

To reflect this importance, 25 public sessions and workshops were woven throughout the programme of the Annual Meeting, focusing on challenges such as the prevention of non-communicable diseases (NCDs), curing cancer, access to healthcare in emerging economies, clinical analytics for health outcomes, resilience against pandemics, global health security, genetic diseases, neuroscience, antimicrobial resistance and several other topics that rank highly on the global health agenda.

The Future Healthcare Context

While technological innovation has been responsible for vast improvements in healthcare, demographic and economic forces are exerting increasing pressure on the system and its sustainability. An ageing global population and the use of vast national resources in healthcare are presenting new challenges in healthcare delivery. In many developed countries, healthcare represents some 15% of GDP, with that number even greater in several developing countries. Waste alone amounts to 30% of total costs in the USA. While these figures illustrate increasing unsustainability, panellists agreed that the system is in need of innovation and should take advantage of technological capabilities, arguing that healthcare should be a source of economic growth as opposed to a burden on national economies.





A New Era in the Fight against Cancer

In every human body, each cell has more than 20,000 genes. The way that cancerous cells mutate in a body is complex and unique. The evolution from conventional techniques towards personalized, targeted treatment is also being applied to exciting new breakthroughs in immunotherapy. Similarly, checkpoint blockade therapy applies individualized treatment to prevent an overactive biological response, which can lead to autoimmune disease. These exciting new treatments will change the future of cancer treatment but are yet to be widely employed.

Experts in cancer treatment and immunology hope that in the near future each single cancer tumour will be able to be sequenced – facilitating a more effective customized treatment.

Confronting the Challenge of Catastrophic Outbreaks

Panellists called for support in helping countries build resilient healthcare systems and “build back better” community health facilities. As many as 129 countries have weak public health systems, making populations across borders vulnerable to outbreaks.

The Ebola vaccine wiped out the resources of the countries it ravaged. As a result, measles, cholera and other previously preventable diseases are also on the increase. Clinical trials have accelerated massively and new vaccines and drugs should be available so that no one else will die from Ebola. Private-sector investment will be key to bringing economic hope back to the communities.

01: Mariette DiChristina, Editor-in-Chief, Scientific American, USA; José Baselga, Physician-in-Chief and Chief Medical Officer, Memorial Sloan-Kettering Cancer Center, USA; Carl H. June, Richard W. Vague Professor in Immunotherapy, School of Medicine, University of Pennsylvania, USA

02: Peter Piot, Director and Professor of Global Health, London School of Hygiene and Tropical Medicine, United Kingdom; Paul Stoffels, Chief Scientific Officer and Worldwide Chairman, Pharmaceuticals, Johnson & Johnson, USA; Margaret Chan, Director-General, World Health Organization, Geneva; Alpha Conde, President of Guinea; Seth F. Berkley, Chief Executive Officer, GAVI Alliance, Switzerland; Tony O. Elumelu, Founder, Tony Elumelu Foundation, Nigeria



Shifting the Healthcare Narrative

Modern healthcare has extended average life expectancies and improved livelihoods around the world, but the narrative of Western medicine has emphasized the development of specialized cures rather than the importance of basic wellness. Demographic and spending trends suggest that if this model continues, healthcare costs will double by 2025. Given that healthcare spending consumes nearly 20% of GDP in some developed countries, this approach is clearly unsustainable. Governments and business leaders need to view healthy populations as an investment and a motor for sustainable economic growth and shift their collective action to incentivize healthy behaviours and the promotion of populations' health.

Economics of Longevity: How Can Ageing Populations Drive the Economy Forwards?

Approaches taken by countries such as Japan, Singapore and Denmark have highlighted the need to adapt to ageing by raising the retirement age, providing incentives for employees to stay at work longer and retrofitting cities to integrate age-friendly design features into transport systems, all aspects of mobility and building codes. Substantive advances in technology could better prevent, detect and manage cognitive decline. Adapting and sharing such advanced thinking with developing countries is highly important.



01: Malvinder Mohan Singh, Executive Chairman, Fortis Healthcare, India; Hermann Gröhe, Federal Minister of Health of Germany; Bernard J. Tyson, Chairman and Chief Executive Officer, Kaiser Permanente, USA; Paul Bulcke, Chief Executive Officer, Nestlé, Switzerland; Risa Lavizzo-Mourey, Chief Executive Officer and President, Robert Wood Johnson Foundation, USA; Joseph Jimenez, Chief Executive Officer, Novartis, Switzerland

02: Alice Gast, President, Imperial College London, United Kingdom; Noubar Afeyan, Managing Partner and Chief Executive Officer, Flagship Ventures, USA; David B. Agus, Professor of Medicine and Engineering, USC Center for Applied Molecular Medicine, USA; Ezekiel Emanuel, Vice-Provost, Global Initiatives, and Professor of Medical Ethics and Health Policy, Perelman School of Medicine, University of Pennsylvania, USA; Nick Leschly, Chief Executive Officer, bluebird bio, USA; David Schenkein, Chief Executive Officer, Agios Pharmaceuticals, USA



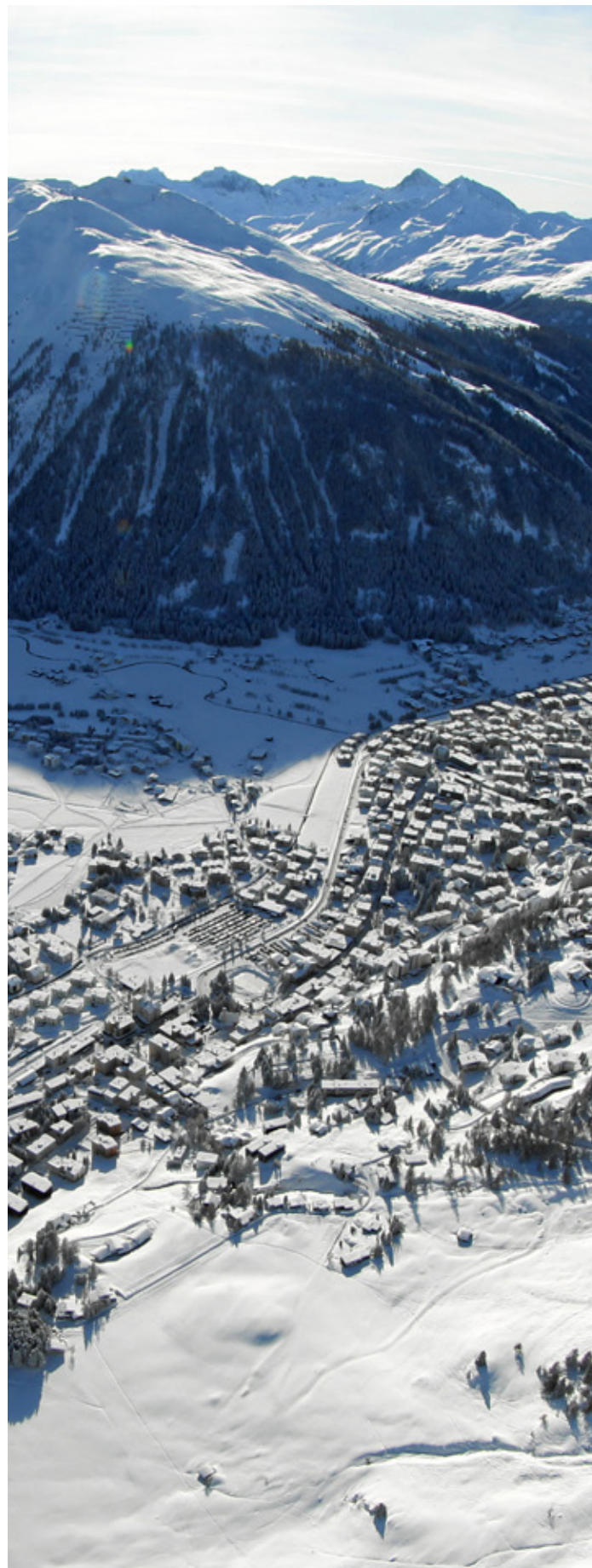
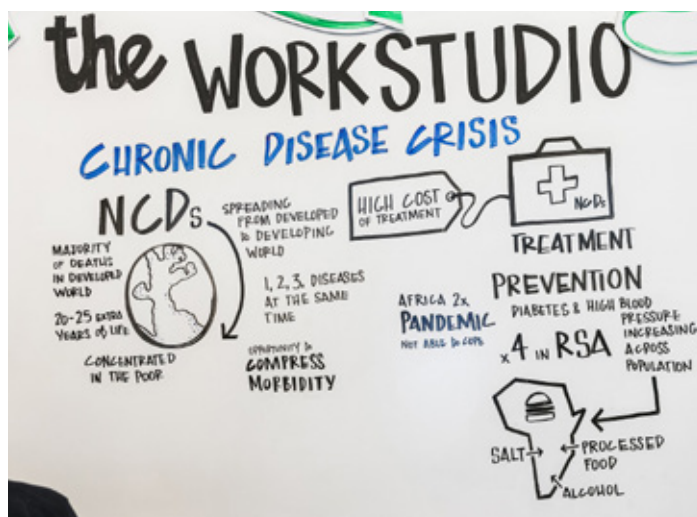
My Doctor Is Digital

There is an explosion of new healthcare technologies, modalities and approaches, but this new technology and infrastructure far outstrips our ability to develop new drugs and to commercialize and pay for them. To make healthcare affordable, systemic incentives must change to encourage a focus on prevention instead of treatment, and to encourage research that focuses on drugs that truly work. Policy-makers should think more not just about how to make healthcare delivery more cost-effective but also about how to make research more efficient.



Globalization of Chronic Disease

Non-communicable (NCDs) or chronic diseases are a global problem affecting both developed and developing economies. NCDs were responsible for 38 million of the world's 56 million deaths in 2012 (68%). More than 40% of them (16 million) were premature deaths of people under the age of 70. Almost three-quarters of all NCD deaths (28 million), and the majority of premature deaths (82%), occur in low- and middle-income countries. Chronic diseases represent a burden on economies and societies owing to the high cost of treatment and the loss in productivity. A loss in economic output amounting to \$47 trillion is expected globally between 2012 and 2030 as a result of chronic diseases. Behavioural changes, early detection and technological advances represent ways of reducing the spread of NCDs. Public policy and the private sector can contribute to reducing the future incidence of chronic diseases and healthcare systems need to emphasize wellness through aligned incentives.



The Davos Challenge

This year, the World Economic Forum launched “The Davos Challenge: Walk for Education”, a programme designed to help cut the time children spend travelling to school in rural areas of Africa and to improve their learning opportunities. The project was carried out in collaboration with UBS and World Bicycle Relief, a social enterprise that is part of the Schwab Foundation network.

Poor transport infrastructure combined with long distances to school mean that many children in Africa are not getting an adequate education and, therefore, are ill-equipped to fight the cycle of poverty. For instance, in rural South Africa, many have to walk six kilometres or more to school every day. This cuts into their learning time or even stops them attending school altogether. Providing schoolchildren with robust bicycles built for rugged country terrain can reduce their travel times by 75%, boosting attendance and educational achievement.

For every six kilometres walked by Davos participants during the World Economic Forum Annual Meeting 2015, UBS and the UBS Optimus Foundation donated a specially designed bicycle to a school child in rural South Africa. The bicycles were provided by World Bicycle Relief, a not-for-profit organization in Africa, which is dedicated to improving access to education and increasing learning outcomes by reducing travel time for children.

2,500 Bikes Donated to Rural African Students as Part of the Davos Challenge

- Participants at the World Economic Forum Annual Meeting walked enough kilometres to meet the donation goal set by UBS and the Forum of 2,500 bicycles, equal to one for every Davos participant.
- The bicycles will be given to children in rural Africa, making it easier for them to get to school.

The first 1,000 participants who signed up for the challenge at the World Economic Forum Annual Meeting in Davos-Klosters were given an activity tracker to log the distance they walked. The participants in the challenge walked an average of more than 14 kilometres during the meeting, beating the target of six kilometres per person.

The Davos Challenge: Walk for Education

Average distance walked by participants	Furthest distance walked
14.5 km	61.3 km
Thousands of steps	Hours more learning time
43,352,000 steps	1,126,000 hours
Number of bikes donated	
2,500 🚲	



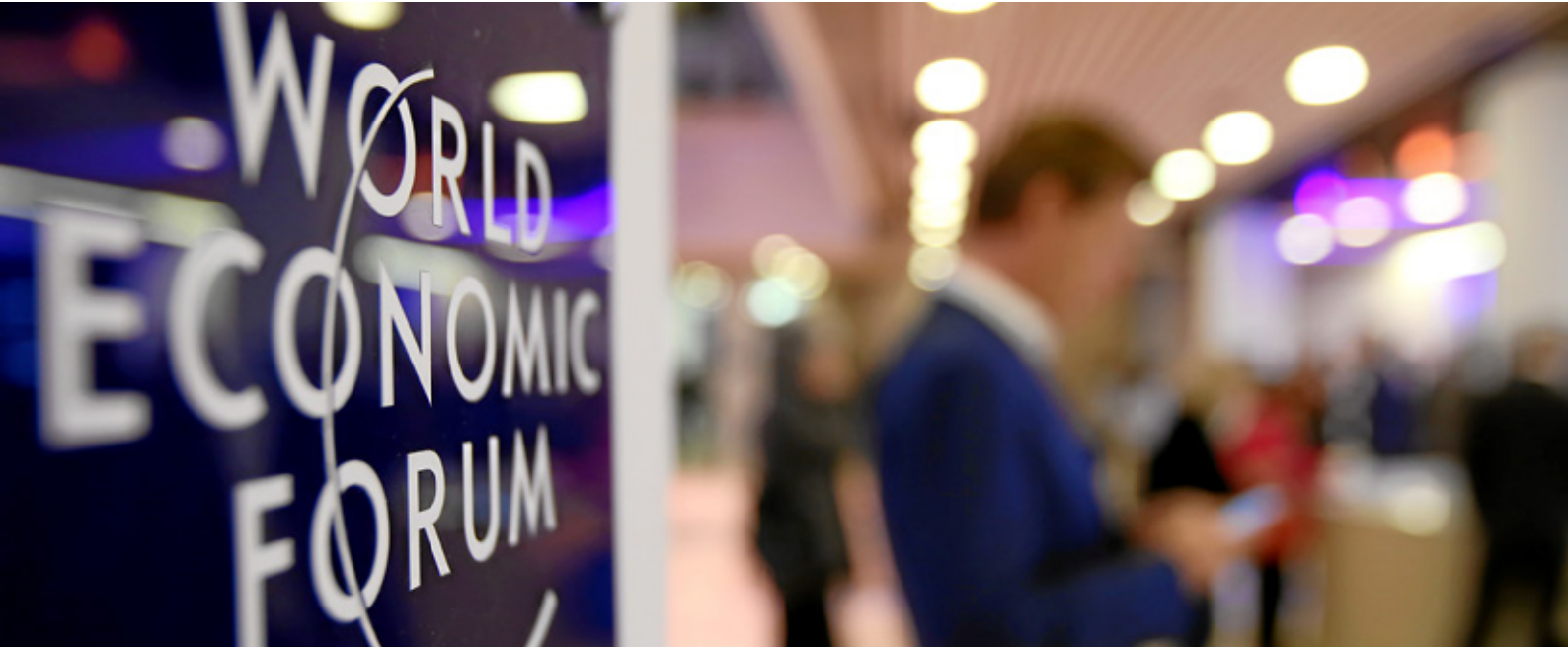


Global Health & Healthcare Governors Sessions

Top Industry Issues

The most important issues that shape the industry agenda





Global Health & Healthcare Governors Meeting

Shaping the Global Health Programme in the New Global Healthcare Context, and Promoting Governors Engagement to Maximize Impact

Key Points

- The debate on the value of healthcare needs to be advanced and attention should be moved from a disease-focused, transactional health system towards an integrated, outcome-focused, risk-benefit sharing model along the continuum of care. Healthcare can be improved and the benefits passed on in a continuous cycle of providing more effective care at lower cost and reinvesting the savings into long-term health measures and research.
- The value of healthcare, and hence the acceptable pricing of cures, does not have a unique definition. It can be the value to society (growth and wealth), to the individual (desire to be treated at all costs), to governments (share of budgets), to the insurer (economic return on clinical innovation). It does not even have a determined time horizon for measurement and can range from weeks to years. Shaping the debate by drawing up a white paper could be the first step towards engaging other health system stakeholders in the demands for change and alignment of incentives.



01: Michael Neidorff, Chairman and Chief Executive Officer, Centene Corporation, USA; Paul Bulcke, Chief Executive Officer, Nestlé, Switzerland; Bernard J. Tyson, Chairman and Chief Executive Officer, Kaiser Permanente, USA

02: Malvinder Mohan Singh, Executive Chairman, Fortis Healthcare, India; Joseph Jimenez, Chief Executive Officer, Novartis, Switzerland



With a holistic approach from prevention to treatment and the involvement of both health and non-health actors, we can make a difference to the healthcare of a community.



Joseph Jimenez, Chief Executive Officer, Novartis, Switzerland; Co-Chair of the Community of Global Health & Healthcare Governors 2014-2015



The Health community offers the unique opportunity to establish a leadership development programme for employees in our companies across health sectors; this will help us to learn from and collaborate with each other.



Malvinder Mohan Singh, Executive Chairman, Fortis Healthcare, India

Context

The Global Health & Healthcare Governors Meeting focused on sharing guidance from Health Partners on the future Health Programme and selected themes going forward, considering the input from the two ongoing health initiatives and additional suggested community-based initiatives and the employee-exchange platform. This guidance is of particular importance given that both current Health initiatives, the “Future of Healthy” and “Health Systems Leapfrogging”, will be concluded at the end of 2015.

Synopsis

The debate on the future Health Programme was tied into the new global healthcare context, defined in the Health Transformation Map by six driving forces:

- **Consumer health and well-being**
Individuals being increasingly empowered to make healthcare decisions
- **Health economics**
The need to improve clinical outcomes while lowering costs is driving healthcare reform across the globe
- **Health governance**
A shift from micro-level initiatives to macro-level aspects of policy-making and the increasing failure of large national and global healthcare policy institutions to address global healthcare matters
- **Innovation and technology**
The move towards personalized medicine and the evidence presented by bio pharma of the need to reinvent business models in order to bring innovation to markets and patients

- **Pandemics**
Pandemics and increasing vulnerability to the spread of newly evolved pathogens
- **Non-communicable diseases**
The rapid rise in NCD-related deaths, especially in low- and middle-income countries

Value-based healthcare will be captured as an additional driving force. Aligning incentives was identified as another cross-cutting theme and is thus being addressed by the Industry Agenda Council, which may in turn expand its scope to value-based healthcare within the context of a project starting in 2016.

The Health Governors have explored different types of projects, ranging from generating insights and building awareness, as achieved by the “Future of Healthy” project, to building partnerships and collaborations as realized by the “Health Systems Leapfrogging” project, in addition to the possibility of “community-based initiatives” within the Health community and the development of a “platform for capabilities exchange”. Further specifics of these projects and potential initiatives are provided below.

- **The “Future of Healthy” project** followed the clear guidance of the Health Governors by focusing on two dimensions: (1) the ecosystem of healthy life, including the connections to other industries; and (2) maximizing “healthy years” for individuals by taking a broad view of the entire life span, rather than just looking at the last few years of unhealthy life.
- Building on the experience gained from this project, the Governors raised the idea of drawing up a white paper on an **“value-based approach”**. This would lay out the economic benefits and productivity gains of reducing healthcare expenditure on patients with high-cost diseases and investing the realized savings in long-term health measures, such as prevention for the entire population within a given time frame. This outcome-based debate calls for a new trusted model of governance. A community-based initiative (see below) would be a natural avenue for putting this approach into action. Overall, the Governors felt that the outcome-based debate needs to be further conceptualized and initiated with public officials.
- A key question addressed by the **“Health Systems Leapfrogging”** project is how to innovate healthcare systems and how to do so rapidly and cost-effectively. Based on a survey and interviews with more than 50 innovators, a number of excellent leapfrogging solutions have been identified. The real challenge is how to scale innovative solutions, as well as how to move this project towards implementation in the countries under consideration, i.e. Nigeria and South Africa. Reflecting the importance of the leapfrogging project, Governors agreed to look into the profile and capabilities of their own companies to then link leapfrogging work with companies’ initiatives.

- **“The community-based initiative”** was raised as a potential project which could capitalize on the principles of the two projects and apply them in a real-world setting. The idea is to take a holistic view of all aspects of life, including nutrition, health, infrastructure, etc., and to set outcome targets, such as keeping healthcare costs flat for five years or controlling diabetes among the population. There are great examples where Health Partners achieved a significant impact in similar settings in Russia, the United Kingdom and Kenya. The key to success is to select one specific disease and align private sector companies across industries, foundations and the public sector on this initiative.
- The **“platform for capabilities exchange”** relates to the idea to launch an employee-exchange programme across Health Partners. Governors found this idea highly engaging as it broadens the scope of and creates understanding for other sectors within the Health community.

Communication and Interaction within the Health Community

The Health Governors would prefer that more comprehensive updates on the work carried out by the Forum be provided digitally. A private area on TopLink will be set up that enables “push” notifications for health news and that offers Health Partners the opportunity to share findings and reports.



“

Continuous care is needed across the health continuum, from healthy living and disease prevention, to diagnosis, treatment and eventually to providing care at home. By working together across the health continuum, we shift our focus to outcome-based health care.

”

Frans van Houten, President and Chief Executive Officer, Royal Philips, Netherlands

“

Value-based healthcare is the way forward, defined as achieving cost savings by improving care for high-cost diseases and reinvesting savings in long-term health measures such as prevention.

”

Omar Ishrak, Chairman and Chief Executive Officer, Medtronic, USA

01: Jakob Riis, Executive Vice-President of Marketing, Medical Affairs and Stakeholder Engagement, Novo Nordisk, Denmark; Vincent A. Forlenza, Chairman, President and Chief Executive Officer, Becton, Dickinson and Company, USA; Christophe Weber, President and Chief Operating Officer, Takeda Pharmaceutical Company, Japan

02: Paul Bulcke, Chief Executive Officer, Nestlé, Switzerland

Health and Economic Growth Summit

Overview

The second Health and Economic Growth Summit provided a platform for heads of state and government, leaders of international organizations, ministers of health, civil society representatives, top academics and over 40 chief executives from the healthcare, consumer, media and telecommunication industries to focus on healthy populations as a driver of socio-economic growth. This second Summit focused on the value of healthy populations and key investment opportunities within the ecosystem of healthy populations and the prevention of NCDs.

Key Points

- Short-term political and business cycles are the enemy of long-term investments in healthy populations. Neither governments nor businesses will solve the challenges of NCDs in isolation and need robust strategies for collaboration and co-investing in positive health outcomes.
- To drive forward the health agenda, it is crucial to articulate the current debate on the cost of and investment in NCD prevention and the broad ecosystem of health. A compelling document is needed to disseminate information and inform dialogues with policy-makers and business leaders.
- A repository of best practices could drive regional or country-specific multistakeholder collaborations to realign health and prevention policies for improved health outcomes and economic benefits for businesses, governments and society.
- Health information and health-enabling infrastructure are necessary, but not sufficient, to improve health. The right incentives are needed to continuously make healthy choices the affordable and easy choices for the whole population.
- Social media should be used to rebrand health and healthcare for people to “thrive and not just survive”. The rebranding must target the young, aiming for long-term behavioural and cultural change.

“

The argument “I am poor and don’t care about my health” is flawed. It is our collective responsibility to enable healthy populations across socio-economic groups.

”

Bernard J. Tyson, Chairman and Chief Executive Officer, Kaiser Permanente, USA; Co-Chair of the Governors for the Global Health & Healthcare Community 2014-2015

“

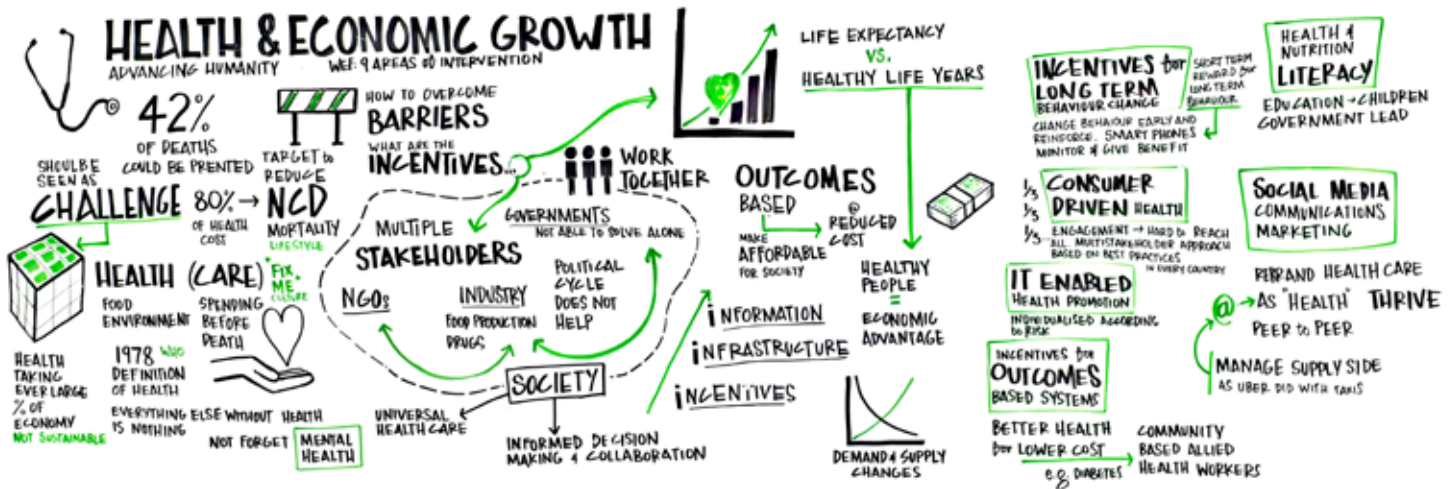
The world has reached a decisive point in the history of non-communicable diseases. With effective action, government and business leaders can halt this slow-motion disaster that is affecting countries across borders.

”

Margaret Chan, Director-General, World Health Organization, Geneva



01: Edith Schippers, Minister of Health, Welfare and Sport of the Netherlands; Bernard J. Tyson, Chairman and Chief Executive Officer, Kaiser Permanente, USA; Margaret Chan, Director-General, World Health Organization, Geneva; Ezekiel Emanuel, Vice-Provost, Global Initiatives, and Professor of Medical Ethics and Health Policy, Perelman School of Medicine, University of Pennsylvania, USA



Setting the Scene: the Current Health Context

In times of economic uncertainty and slow growth, it is more important than ever for economies to find alternative ways to gain a competitive advantage. Healthy individuals and healthy populations can create a competitive advantage through increased productivity, reduced healthcare costs and overall higher levels of well-being. NCDs are a threat to economic growth in all states and economies around the globe. In most countries, the cost of treating NCDs accounts for up to 80% of total healthcare expenditure. Diseases like diabetes, cancer or cardiovascular diseases are the most expensive to treat and even the richest economies, like the USA or the Netherlands, cannot deal with such costs in the long run. For example, in the Netherlands, 25% of the average household income is spent on healthcare.

A global target has been agreed of a 25% reduction in **NCD mortality by 2025**. Achieving this goal will pay off for businesses, governments and societies at large. The Lancet Commission estimated that between 2000 and 2011, about 24% of the growth in low-income and middle-income countries (measured in terms of full income) resulted from the value of additional life years gained.

Public and private stakeholders can realize a return from investing in healthier populations. The World Economic Forum worked with its Partners and developed compelling data-driven examples that showcase great investment opportunities with returns (ROI) ranging from 90% from curbing pollution in China, to 1,100% from reducing saturated fat intake in Singapore and 3,700% from managing at-risk cardiovascular patients in the USA with a simple inexpensive medication regimen.

“**We must not forget mental illnesses, as those will become the most important and severe diseases in modern economies.**”

”

Erna Solberg, Prime Minister of Norway

“
The three ‘I’s of information, infrastructure and incentives are needed to create health in a sustainable way.
 ”

Ezekiel Emanuel, Vice-Provost, Global Initiatives, and Professor of Medical Ethics and Health Policy, Perelman School of Medicine, University of Pennsylvania, USA

Investment Opportunities and Strategies to Promote Health

Participants at the Summit pinpointed key investment opportunities and multistakeholder strategies to enable healthy populations through the prevention of NCDs.

Key Investment Area: Health and Nutrition Literacy

Investments in education are expected to generate a high impact on both health and economic outcomes. Increasing levels of health and nutrition literacy can occur through interventions in multiple settings: schools, communities, workplaces, mass media campaigns, primary care centres, supermarkets, retail pharmacies, etc.

Recommended action: Invest in healthy nutrition and physical activity. This should happen throughout the life cycle, including for children in the first 1,000 days of life and their mothers. The development of the key messages should be led by the government and the private sector can leverage its marketing expertise and consumer understanding for effective and compelling dissemination through the appropriate channels.



01: Margaret Chan, Director-General, World Health Organization, Geneva; Paul Bulcke, Chief Executive Officer, Nestlé, Switzerland; Hermann Gröhe, Federal Minister of Health of Germany

02: Rob Flaherty, President and Chief Executive Officer, Ketchum, USA

Key Investment Area: Rebrand Healthcare as Health through Social Media

Decision-makers should make use of social media and marketing practices to rebrand healthcare as health and to move the systems from a “sick”-based system to a “health”-based system. New technology targeting youth should be used to drive this needed cultural change. A mobile platform can be offered for health coaching and treatment support, particularly for chronic conditions and mental health (e.g. #let’s talk). Access to mobile devices should be leveraged as this will make it easier to manage demand and supply for health behaviours. One idea would be to manage vacant capacity within health providers using a model similar to Uber.

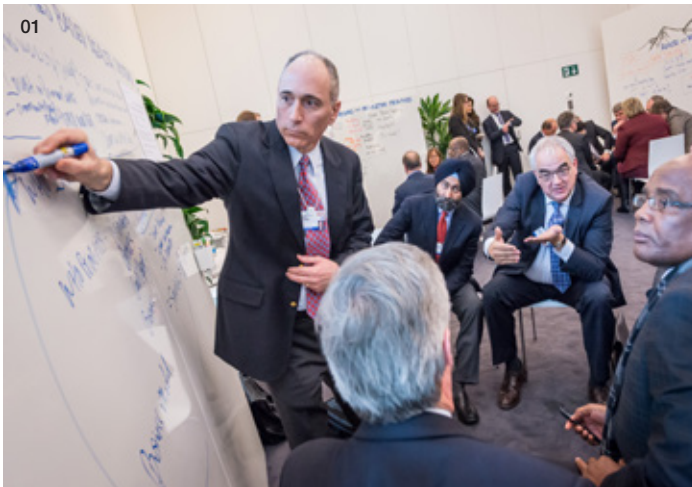


Recommended action: Use social media and new mobile technology to promote healthy lifestyles. This will foster a change towards “healthy” as an asset and a key value in cultural norms.

Key Investment Area: Reinvest Savings from Better Health Outcomes in Prevention

With improved outcomes, significant amounts of healthcare expenditure can be saved. Such funds should be made available for reinvestments in health promotion.

Recommended action: Test this hypothesis on a specific chronic condition such as diabetes. With better outcomes in diabetes care and management, hospitalization and disability rates can be reduced, leading to reduced healthcare expenditure. Reinvest savings into the efficiency of the system as well as reinforcing prevention activities at the community level. This will spur a virtuous cycle of investing in healthy populations.



Key Investment Area: Empower Individuals through a Personalized “Healthy Living Health Plan”

Devices that track various health data to be played back to the individual can help people to learn more about their lifestyle and make suggestions on how to live more healthily. New communication channels between healthcare professionals and patients support the information flow and enable patients to inform themselves about health topics.

Recommended action: Develop a personalized IT-enabled “Healthier Living Health Plan” with the individual’s data, providing advice on healthy diets, physical activity, smoking cessation, moderate alcohol consumption and treatment adherence. This closed feedback loop should be assessed by insurers, governments and healthcare providers as investment opportunities.

Key Investment Area: Set up Multistakeholder Platforms at Country Level and Share Best Practices for Enabling Healthy Populations

Enabling healthy populations will only happen with effective collaboration across public and private stakeholders, including actors outside the traditional healthcare space. Learning from experience gained from multistakeholder collaborations can play a crucial role in advancing this agenda.

Recommended action: Establish national-level platforms for consistent dialogue and multistakeholder collaborations on enabling healthy populations. Collect and widely share best practices relating to incentives for enabling healthy populations and information on stakeholder investments and ROI for the investors and society overall. The World Economic Forum is well placed to gather and share best practice examples provided by stakeholders from all sectors and industries.

01: Joseph Jimenez, Chief Executive Officer, Novartis, Switzerland; Malvinder Mohan Singh, Executive Chairman, Fortis Healthcare, India; Paul Stoffels, Chief Scientific officer and Worldwide Chairman, Pharmaceuticals, Johnson & Johnson, USA; Aaron Motsoaledi, Minister of Health of South Africa

02: Frans van Houten, President and Chief Executive Officer, Royal Philips, Netherlands

03: Babatunde Osotimehin, Executive Director, United Nations Population Fund, USA; Michael F. Neidorff, Chairman and Chief Executive Officer, Centene, USA



Key Investment Area: Build a Health-Enabling Environment with Incentives and Nudges

Behaviour-based incentives present investment opportunities to respond to consumer demands for more health-oriented products and services, but also to nudge individuals towards healthier patterns and to support them in long-term adherence to those behaviours and/or treatments. Successful examples include: South Africa’s Discovery incentives scheme, the clean cookstove programme and the offering of healthier meals at discounted prices in workplace canteens.

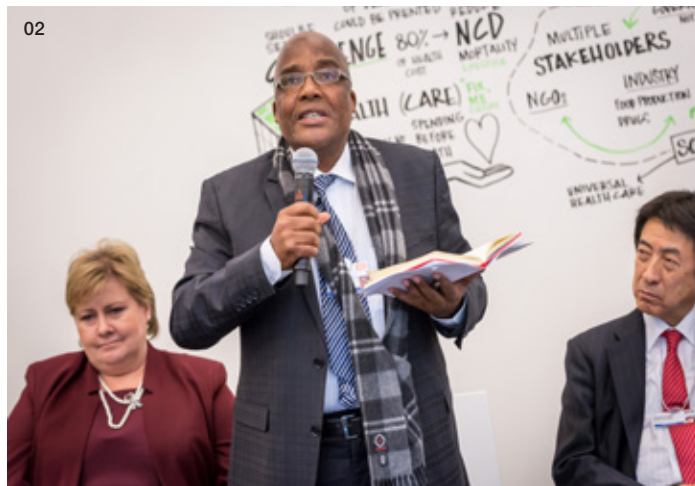
Recommended action: Foster a shared mindset among policy-makers and business leaders, focusing on providing incentives and rewards for healthy behaviours as well as building healthier environments where the healthy choice is the easiest and most affordable choice.





Next Steps

The World Economic Forum will continue to provide a neutral space for public, private and civil society stakeholders to advance the global agenda on positioning healthy populations as a driver for socio-economic growth. For the second year of the “Future of Health” project, the focus will be on understanding the investment opportunities within the ecosystem of health, outlining the business models underpinning such investments and providing a platform and methodology for public-private collaborations on investing in healthy populations and the prevention of NCDs.



01: Margaret Chan, Director-General, World Health Organization, Geneva
02: Erna Solberg, Prime Minister of Norway; Aaron Motsoaledi, Minister of Health of South Africa; Yasuhisa Shiozaki, Minister of Health, Labour and Welfare of Japan



Global Health & Healthcare Industry Partnership Sessions

Affordable Innovation

Overview

The Affordable Innovation session convened high-level government officials and top leaders from business and civil society from across sectors to explore the drivers of affordable healthcare innovation, specifically focusing on: (i) big data; (ii) innovative business models, especially payer-provider and risk-sharing models; (iii) patient empowerment technologies and approaches; (iv) affordable biopharmaceutical businesses and the ethical challenge of access to them; and (v) regulatory considerations.

Key Points

- Creating outcome-based healthcare systems and developing a culture of accountability to the patient can transform the health agenda and the healthcare industry.
- Developing integrated solutions to increase access to and use of data are essential to address the growing trends in the healthcare landscape (e.g. NCDs).
- Using connectivity and technology-enabled solutions can empower patients for improved decision-making and health outcomes.
- Unleashing the power of big data can happen only when the issues of privacy regulation and interoperability standards are adequately addressed.
- Investing in personalized medicine and genomics can improve outcomes and be affordable in the “right” financing context (e.g. outcome-based payment).
- Sustainable public-private partnerships are established when private sector ideas and initiatives are aligned with the needs and priorities of the government.

Synopsis

Innovation does not always mean new technology: it can signify using current technologies and knowledge in a more efficient manner, applying new operating models or inducing behavioural change. Some examples for ensuring that innovation is affordable include: (i) implementing process changes with the introduction of new models (e.g. do not simply add a new technology but remove the one that existed there before); (ii) creating incentives for the payers, providers and patients (e.g. introduction of clinical pathways); (iii) empowering patients and providers to care for each other outside the traditional inpatient setting (e.g. healthy circles); (iv) unleashing the potential of

the four “v”s in data use – vastness of scope, velocity of generation, variety of sources, validity for use. All of these require coordination and adequate privacy regulation and interoperability standards; (v) focusing on outcomes and value in product development: innovation can become the principal cause for escalating healthcare costs owing to the development and introduction of new technologies and devices, without considerable regard for value.

In the United States, it is estimated that about 50% of cost increases are the results of tech and innovation. This could be different if their introduction were linked to the value/outcomes that they bring. This is particularly true for the use of personalized medicine and genomics-based solutions; and (vi) offering solutions for home-based use that are specifically designed to engage patients and connect them to their own data. These prove to be an effective tool for delivering care, controlling costs and improving health outcomes. Understanding and regulating the major liability issues (i.e. provider/patient or software/hardware developer liability) related to the use of clinical decision support tools are important milestones is unleashing their widespread use.

These findings will be incorporated in the work of the Meta-Council on the Future of Health and in the new Internet of Things project, which will look closely at the impact of digitization on the healthcare industry.



01: Ezekiel Emanuel, Vice-Provost, Global Initiatives, and Professor of Medical Ethics and Health Policy, Perelman School of Medicine, University of Pennsylvania, USA



01



02



03

01: Aaron Motsoaledi, Minister of Health of South Africa
02: John Noseworthy, President and Chief Executive Officer, Mayo Clinic, USA
03: Nicolaus Henke, Director and Leader, Global Health Systems and Services Practice, McKinsey & Company, United Kingdom; Malvinder Mohan Singh, Executive Chairman, Fortis Healthcare, India; Bernard J. Tyson, Chairman and Chief Executive Officer, Kaiser Permanente, USA

“

Innovation doesn't always mean new technology: it also means using current technologies and knowledge in a more efficient manner.

”

John Noseworthy, President and Chief Executive Officer, Mayo Clinic, USA

“

Whenever possible we need to create studies using existing data, as there are vast untapped repositories available. There is no need to repeatedly spend tens of millions on new studies rather than tapping into currently available data stores.

”

Bernard Meyerson, Chief Innovation Officer, IBM, USA

“

We need to create a culture of accountability to the patient [not the other way around].

”

Pascale Witz, Executive Vice-President, Global Divisions and Strategic Development, Sanofi, France

“

We need the private sector to respond to our needs, not run one-off projects on their own.

”

Aaron Motsoaledi, Minister of Health of South Africa

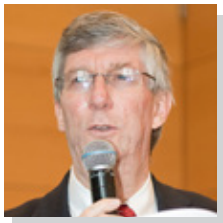
Health Systems Leapfrogging in Emerging Economies

Overview

Building on the first year's groundwork, this session brought together diverse innovators, high-level government officials and public and private sector executives to discuss the transformative potential of the leapfrogging approach for building sustainable health systems – placing particular emphasis on the strategies and enablers for scaling up initiatives and achieving broader system transformation.

Format and Participants

The session attracted the attention of a large number of public figures from emerging and developing economies, as well as from international organizations. Among the special guests who delivered addresses were the Ministers of Health of South Africa and the Netherlands, as well as the Commissioner for Health of Ogun State, Nigeria, and the Chair of the National Health Insurance Fund of Nigeria. From the international organizations, the President of the UNFPA and key public-private partnership experts from the World Bank Group facilitated discussions.



“
It's not the lack of good ideas, but of good partnerships and effective operating models that challenge the application of leapfrogging.
”

Vincent A. Forlenza, Chairman, President and Chief Executive Officer, Becton, Dickinson and Company, USA



01: Olumide Olaolu Okunola, Senior Operations Officer, International Finance Corporation, Nigeria; Pieter Walhof, Senior Director, Health Plans, PharmAccess, Nigeria; Femi Thomas, Chief Executive Officer and Executive Secretary, National Health Insurance Scheme, Nigeria; Edith Schippers, Minister of Health, Welfare and Sport of the Netherlands; Olaokun Soyinka, Commissioner for Health Ogun State, Nigeria; Wim Leereveld, Founder and Chief Executive Officer, Access to Medicine Foundation, Netherlands



“
Leapfrogging is exactly what my country needs.
”

Aaron Motsoaledi, Minister of Health of South Africa



Key Points

- Leapfrogging has the potential for building sustainable health systems and contributing to achieving universal health coverage in emerging economies.
- A set of enablers to scale up leapfrogging initiatives must be present to ensure successful health systems transformation.
- Stakeholders are mobilizing to begin brokering public-private partnerships for health systems leapfrogging on a regional level in Ogun State, Nigeria, and on a national level in South Africa. The specific next steps were defined during the discussion.

Synopsis

Leapfrogging is a transformative approach to development that can empower emerging economies to achieve a vision of an ideal health system. It enables economies to grow with equity, strengthen social stability and increase people's overall well-being. Concrete examples of leapfrogging range from one-stop diabetes clinics in Mexico to educational programmes for HIV-positive mothers in South Africa.

Although governments and the private sector often acknowledge the importance of healthcare in emerging economies, they often fail to deliver quality, affordable care. Barriers to providing such care include unclear definitions of effective delivery systems, misalignment of incentives between public and private partners and an overall lack of coordination. Overcoming these barriers calls for new strategies for designing leapfrogging packages, creating new operating models and delivery systems. To understand these issues better, the participants in the sessions discussed three main topics: (i) how packages of leapfrogging initiatives can be designed; (ii) what operating models must be developed to ensure successful implementation; and (iii) how well-designed leapfrogging packages can be delivered and scaled up. These concepts were applied in two county contexts – Ogun State, Nigeria, and South Africa – both with a strong focus on primary care. In Ogun State, a package of mutually reinforcing leapfrogging initiatives was designed in December 2014. The main component is a universal health insurance scheme that was designed as a first step to strengthen the primary healthcare system. In South Africa, the efforts will be anchored around the government's plan to make all its primary level clinics "ideal".

“

We have the money, but we need clever, cost-effective innovations to make use of that money for sustainable solutions and to develop the private sector.

”

Femi Thomas, Chief Executive Officer and Executive Secretary, National Health Insurance Scheme (NGIS), Nigeria

“

Right across Africa, we need to invest in technology and workforce [two areas that will enable broader change in health systems].

”

Tadataka Yamada, Chief Medical and Scientific Officer, Takeda, Japan

Next Steps

- Nigeria Ogun State Workshop: The workshop will focus on finalizing the leapfrogging package by enabling all partners to sign a Memorandum of Understanding for PPPs with the State. Nigeria, April 2015 (to be confirmed)
- World Economic Forum on Africa: The meeting will showcase the leapfrogging work in Africa and the follow-up from the related sessions on Ebola during the World Economic Forum Annual Meeting 2015 in Davos-Klosters. Cape Town, South Africa, 3-5 June 2015
- Unite for Sight Health Innovation Conference. Yale University, New Haven CT, USA, 28-29 March 2015

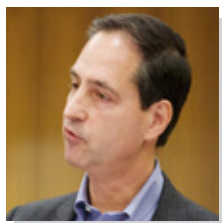
Aligning the Health Sector

Context

In line with the mission of the Industry Agenda Council on the Future of the Health Sector, this session focused on alignment challenges among players in healthcare, such as government, providers and payers, pharmaceutical and medical technology companies, consumer and patients. While alignment is critical to achieving innovation and affordable care, it is often hampered by a lack of common vision, vested interests and the absence of common ground to facilitate and institutionalize alignment.

Key Points

- Misalignments among players in the health sector are often systemic and entrenched owing to fragmentation, lack of incentives and of investment, different funding cycles, issues around privacy, multiple morbidity and fast-evolving innovations such as digital technology.
- Several components are critical to ensure alignment in the health sector: identifying barriers and frictions, rectifying them, creating an aligned system, and estimating the value of the aligned system.
- Defining the value of an aligned system is difficult given its complexity, including financial and non-financial aspects, changes over time and varying views among stakeholders. Related to this is the lack of consensus on “what good looks like” in many areas of healthcare.
- Real-life situations in which multistakeholder groups are truly involved in finding solutions are lacking. In addition, new players such as IT companies are often missing in health debates.



“
A shared definition of value in the context of any new health intervention will be key to aligning health stakeholders

”

David E. Bloom, Clarence James Gamble Professor of Economics and Demography, Harvard T.H. Chan School of Public Health, Harvard University, USA



01: Peer M. Schatz, Chief Executive Officer, QIAGEN, Germany

Synopsis

Five key areas of potential misalignments were focused on during the session:

- **Digital health**
There has been a low uptake of digital health owing to various barriers, e.g. regulatory hurdles impeding technology innovation aimed at better health outcomes. New technologies building on digital platforms could address some of the most intractable areas of health, including the challenges of reaching the poorest communities; however, there are limited opportunities to interact in meaningful ways with the health sector, e.g. patient groups. Overall, the key to digital health's success would be to take it from its experimental status to a fully integrated healthcare system.
- **Value-based pricing for hepatitis C drugs**
Drug pricing involves a complex methodology combining factors such as cost of research and development, cost of goods, cost of distribution, and other related costs. Another influencing factor may be the value a drug creates for individual patients or the society. New treatments for hepatitis C have been under scrutiny owing to their extremely high costs, even though they offer a cure and shorten the overall length of therapy, resulting in reduced treatment costs. In this context, it is important to ensure that innovation is further incentivized to the benefit of research companies and, moreover, of the entire health system.
- **Evaluating quality outcomes in oncology**
There is limited consensus among health stakeholders on how to define and assess outcomes for oncology. Furthermore, there is a large variation in measuring outcomes in the developed world. Specific solutions have been created, such as oncology funds; yet, these solutions at times require additional access rules to enhance fund management. Key factors in alignment are involving all relevant stakeholders, including non-traditional ones; developing shared views on value such as “achieving equality of access and outcomes”; and looking holistically at the incentives across the whole value chain.
- **Personalized medicine**
Misalignments limit adoption of personalized medicine. Challenges include misalignment of regulatory frameworks, different treatment pathways, underutilization of information from patients, and a lack of relevant education and of medical capabilities among healthcare professionals. Each stakeholder needs to be involved and educated about the essentials of personalized medicine. Furthermore, a common definition of value is missing, as there are different frameworks and limited transparency across stakeholders. The role of patients will be essential in

unlocking the potential of personalized medicine as they raise awareness of providers and payers as well as governments, prompting them to engage in research and the adoption of new treatment pathways.

– **Pharmaceutical testing in India**

More restrictive government regulations on clinical trials have halted the development of new drug testing in India, ensuring safety for patients but also resulting in higher costs and more complex processes. Misalignments between the interests of stakeholders should be replaced with not only better communication and coordination, but also an effective framework for clinical testing to ensure high quality, while prioritizing the safety of patients, for the benefit of the health system of the entire country.

Next Steps

The above findings will be integrated into the future activities of the Industry Agenda Council on the Future of the Health Sector. These will include the development of a report.

“

Cross-stakeholder alignment is a key issue in personalized medicine, as a broad set of stakeholders needs to be engaged – each with different frameworks and views on how personalized medicine should be applied to create maximum value.

”

Peer M. Schatz, Chief Executive Officer, QIAGEN, Germany



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Adar C. Poonawalla, Chief Executive Officer, Serum Institute of India, India

Christophe Weber, President and Chief Operating Officer, Takeda Pharmaceutical Company, Japan

John Noseworthy, President and Chief Executive Officer, Mayo Clinic, USA

Jeremy Farrar, Director, Wellcome Trust, United Kingdom

Marc N. Casper, President and Chief Executive Officer, Thermo Fisher Scientific, USA

Satoshi Tsunakawa, Executive Officer, Corporate Senior Vice-President and President and Chief Executive Officer, Healthcare Company, Toshiba Corporation, Japan

Ornella Barra, Executive Vice-President, Walgreens Boots Alliance; President and Chief Executive, Global Wholesale and International Retail, Walgreen Boots Alliance, Switzerland

* *Alternate*

Global Health and Healthcare Community Calendar 2015

2015

2016

			APRIL		MAY		JUNE		SEPT		OCT		JAN	
World Economic Forum Meetings	East Asia	Jakarta, Indonesia	19-21 April											
	Latin America	Riviera Maya, Mexico	6-8 May											
	Middle East	Dead Sea, Jordan	21-23 May											
	Africa	Cape Town, South Africa	3-5 June											
	Annual Meeting of the New Champions	Dalian, People's Republic of China	9-11 September											
	Industry Strategy Meeting	Geneva, Switzerland	30 September – 1 October											
	India	New Delhi, India	29-30 October											
	Global Agenda Council	Abu Dhabi, UAE	25-27 October											
	Annual Meeting 2016	Davos, Switzerland	20-23 January											
Project related events	Future of Healthy			✓										
	Health Systems, Leapfrogging in Emerging Economies				✓									
	Industry Agenda Council: Aligning the Health Sector			✓										
	Meta-Council: Future of Health													
	Ageing													
	Mental Health													
Global Agenda Councils														



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