

Peter Sands, M.P.A. (Chair) is a senior fellow at the Mossavar-Rahmani Center for Business and Government at Harvard Kennedy School. He is also lead non-executive director of the Board of the United Kingdom's Department of Health. Mr. Sands was Group Chief Executive of Standard Chartered Bank from November 2006 to June 2015. He joined the Board of Standard Chartered PLC as Group Finance Director in May 2002. Before his appointment as Group Chief Executive he was responsible for Finance, Strategy, Risk and Technology and Operations. Prior to joining Standard Chartered, Mr. Sands was a director with worldwide consultants McKinsey & Company. He had been with McKinsey since 1988 where he worked extensively in the banking and technology sectors in a wide range of international markets. He was elected a partner in 1996 and became a director in 2000. Prior to joining McKinsey, he worked for the United Kingdom's Foreign and Commonwealth Office. Mr. Sands graduated from Oxford University and holds a Master's in Public Administration from Harvard University, where he was a Harkness Fellow.

Oyewale Tomori, D.V.M., Ph.D. (Vice Chair) is President of the Nigerian Academy of Science and pioneer Vice-Chancellor of Redeemer's University, Nigeria. He is a Fellow of the Academy of Science of Nigeria, a Fellow of the College of Veterinary Surgeons of Nigeria, Fellow of the Royal College of Pathologists of the United Kingdom, and Fellow of the American Society of Tropical Medicine and Hygiene. Dr. Tomori received his D.V.M. from the Ahmadu Bello University in 1971 and his Ph.D. in Virology of the University of Ibadan in 1976.

He became the Head of the Department of Virology at the University of Ibadan in 1984, leading research efforts that focused on field and laboratory investigations of viral infections in Nigeria. Dr. Tomori's research interests include a wide range of human viruses, and zoonotic and veterinary viruses including the Yellow fever virus, the Lassa fever virus, the poliomyelitis virus, the measles virus, the Ebola virus and a hitherto unknown virus, the Orungo virus, the properties of which he elucidated, and registered with the International Committee of Virus Taxonomy.

In 1994, he was appointed as the Regional Virologist for the World Health Organization (WHO) Africa Region (AFRO). During a 10-year tenure with the WHOAFRO, he set up the African Regional Polio Laboratory Network, comprised of 16 laboratories, providing diagnostic support to the global polio eradication initiative. The Network was a forerunner of other regional diagnostic laboratory networks for measles, Yellow fever, and other viral hemorrhagic fevers. It was while he was with the WHO-AFRO that he participated in the investigation of viral infections, such as Ebola hemorrhagic fever, Lassa fever, Yellow fever, and Marburg in various African countries—including Liberia, Uganda, Nigeria, and Democratic Republic of the Congo.

Dr. Tomori is the recipient of several awards and honors. He was recognized, in 1981, by the U.S. Centers for Disease Control and Prevention (CDC), with the U.S. Department of Health and Human Services Public Health Service Certificate for contribution to Lassa fever research, and in 1990 he was the recipient of the Nigerian National Ministry of Science and Technology Merit Award for excellence in medical research. In 2002, he received the Nigerian National Order of Merit (NNOM), the country's highest award for academic and intellectual attainment and national development.

Dr. Tomori has served on several advisory bodies including the Board of the BioVaccines Limited in Nigeria, WHO Eastern Mediterranean Regional Polio Certification Committee and WHO Strategic Advisory Group of Experts (SAGE). He currently serves on the Nigerian Expert Review Committee on Polio Eradication and Routine Immunization, WHO Africa Regional Polio Certification Committee, WHO Advisory Committee on Variola Virus Research, WHO Polio Research Committee, WHO Group of Experts on Yellow Fever Disease and the International Steering Committee of the International Consortium on Antivirals (ICAV), and Canada.

Ximena Aguilera, M.D., is Director of the Centre of Epidemiology and Public Health Policies at the Faculty of Medicine Clinica Alemana–Universidad del Desarrollo in Chile. She was Senior Advisor in Communicable Diseases at the WHO Regional Office for the Americas (2008-2010) where among other duties she coordinated the technical response to the influenza A (H1N1) pandemic.

Previously she was the Chief of Health Planning Division at the Ministry of Health in Chile (2005-2008) and Head of the Department of Epidemiology at the same institution (1999-2005). Dr. Aguilera was the Chilean representative during the negotiations on the revision of the International Health Regulations (IHR), and official delegate for Asia-Pacific Economic Forum Health Working Group, and for Mercosur subworking group on health. In addition, she was primarily responsible for pandemic preparedness and for the implementation of the International Health Regulations (2005) at the Ministry of Health of Chile. Dr. Aguilera has worked as consultant for the WHO Regional Office for the Americas, the United Nations Development Fund, the Inter-American Development Bank and the World Bank in several countries in Latin America and participated in the WHO mission in response to the severe acute respiratory syndrome (SARS) outbreak in China (2003). She has been a member of the Advisory Committee of the Global Outbreak Alert and Response Network of WHO.

Irene Akua Agyepong, Dr.P.H., MBChB, M.P.H., FGCPs, is a public health physician from Ghana employed by the Ghana Health Service. She has also taught and supervised students' part time in the University of Ghana School of Public Health since its inception in 2004. In 2012, the Ghana Health Service seconded her full-time to the Department of Health Policy, Planning, and Management of the University of Ghana's School of Public Health. Prior to this she was Regional Director of Health Services in the Ghana Health Service Greater Accra region from 2004 to 2012, and before that District Director of Health for the Dangme West district. She was Professor to the Prince Claus Chair in Development and Equity from 2008 to 2010 at the University of Utrecht in the Netherlands, based in the Julius Center of the University Medical Center. She was chair of the 11-member Board of Health Systems Global, an international membership society for the promotion and development of the field of health policy and systems research globally from 2012 to 2014. She has been a member (since 2006) and Chair (2009–2013) of the Scientific and Technical Advisory Committee of the Alliance for Health Policy and Systems Research.

Dr. Agyepong has an MBChB from the University of Ghana Medical School, a Master's of Public Health from the Liverpool School of Tropical Medicine, Part I of the West Africa College of Physicians and Surgeons in Public Health, and a Doctorate in Public Health from the University of North Carolina at Chapel Hill School of Public Health. She is a Foundation Fellow of the Ghana College of Physicians and Surgeons.

Yvette Chesson-Wureh, J.D., obtained a Juris Doctorate law degree with honors from the North Carolina Central University (NCCU) School of Law where she was also featured in "Who's Who in American Law Schools" 1988 Edition. She is a recipient of several awards and certifications including a certificate in Mediation/Arbitration from Bowie State University. A member of several professional associations both in the United States and Liberia, Dr. Chesson-Wureh is a member of the United States Supreme Court Bar, The U.S. Federal District Bar, The Association of Female Lawyers of Liberia (AFELL) where she serves on the Board, and a current member of the Board of Tax Appeals of Liberia, the first such board in Liberia. She is Board President of Isis-Women's International Cross Cultural Exchange (Isis-WICCE), based in Uganda. An advocate and a champion of women's rights and gender equality, she was the Manager in 2009 of the International Women's Colloquium for Women's Empowerment, Leadership Development, International Peace and Security, which was co-convened by H.E. President Ellen Johnson Sirleaf of Liberia and H.E. President Tarja Halonen of Finland. Dr.

Chesson-Wureh successfully collaboratively plans and manages highly visible national and international events such as the UN High Level Panel meeting in Liberia, ECOWAS 20 years of Peace Meeting, and The Inauguration of the President of Liberia. She is a successful advocate and lobbyist for immigration reforms at the U.S. Congress, State Department, and White House.

Dr. Chesson-Wureh is currently the Establishment Coordinator of the Angie Brooks International Centre (ABIC) for Women's Empowerment, Leadership Development, International Peace and Security headquartered in Liberia, which is the concrete outcome of the International Colloquium. Dr. Chesson-Wureh initiated the "Women's Situation Room" (WSR) and implemented it in collaboration with over 40 women and youth groups for the Liberian elections in 2011. The WSR is a process that mobilizes, harnesses, and taps on the expertise and experiences of women and youth to act to prevent or mitigate potential conflict leading to violence that could emerge before, during or after elections. The Women's Situation Room has been successfully replicated in Senegal (February/March 2012), and in Sierra Leone (October 2012), in Kenya (March 4, 2013) and in Nigeria (March 2015). The WSR has been adopted by the African Union as a "best practice" which ABIC has been asked to replicate in other African countries as elections are held. President Ellen Johnson Sirleaf, President of Liberia and Noble Peace Laureate, is the Champion of the Women's Situation Room. In May 2013 ABIC won the Pan African Award during the African Union's 50th Anniversary for ABIC's body of work. As the chief executive officer of ABIC, Dr. Chesson-Wureh ensured that ABIC was situated on the front line of the Ebola response in Liberia. As a NGO ABIC initiated projects on awareness and sensitization in both urban and rural communities with partners such as United Nations Development Program, United Nations Population Fund, African Women's Development Fund, Urgent Action Fund, The African Union and the Liberian Ministry of Health. Dr. Chesson-Wureh serves on the Presidential Advisory Council on Ebola, gives legal advice to the Government of Liberia on the Ebola vaccine and is Legal Advisor to the Traditional Council of Liberia. ABIC also supported the work of the Liberian doctors treating Ebola.

Paul Farmer, M.D., Ph.D., chairs the Department of Global Health and Social Medicine at Harvard Medical School and is a co-founder and Chief Strategist of Partners in Health (PIH), an international nonprofit organization that since 1987 has provided direct health care services and undertaken research and advocacy activities on behalf of those who are sick and living in poverty. He also is professor of medicine and chief of the Division of Global Health Equity at Brigham and Women's Hospital.

Dr. Farmer began his lifelong commitment to Haiti in 1983 while still a student, working with dispossessed farmers in Haiti's Central Plateau. He served there for 10 years as medical director of a charity hospital, L'Hopital Bon Sauveur. With PIH over the past 26 years, Dr. Farmer has led colleagues working in 12 sites throughout Haiti and 12 additional countries around the globe. For more than a decade, the Department of Global Health and Social Medicine has integrated research and teaching programs with PIH service activities, establishing direct feedbacks between clinical interventions and biosocial analyses. The work has become a model for health care for poor communities worldwide and provides the basis for developing a science of global health delivery implementation.

Dr. Farmer is the recipient of numerous honors, including the Margaret Mead Award from the American Anthropological Association, the American Medical Association's Outstanding International Physician (Nathan Davis) Award, the John D. and Catherine T. MacArthur Foundation Fellowship, and, with his PIH colleagues, the Hilton Humanitarian Prize. He is a member of the National Academy of Medicine and of the American Academy of Arts and Sciences. Dr. Farmer holds an M.D. and Ph.D. from Harvard University. In addition to his leadership roles at Harvard Medical School, Brigham and Women's Hospital, and Partners In Health, he is the United Nations Special Adviser to the Secretary-General on Community Based Medicine and Lessons from Haiti.

Maria Freire, Ph.D., is the President of Foundation for the National Institutes of Health. She comes to the Foundation from the Albert and Mary Lasker Foundation, where she served as President since 2008. Prior to joining the Lasker Foundation, Dr. Freire served as President and CEO of the Global Alliance for TB Drug Development from 2001 to 2008, Director of the Office of Technology Transfer at the National Institutes of Health from 1995 to 2001, and led the Office of Technology Development at the University of Maryland at Baltimore and the University of Maryland Baltimore County from 1989 to 1995. Dr. Freire received her Bachelor of Science degree at the Universidad Peruana Cayetano Heredia in Lima, Peru and her Ph.D. in Biophysics from the University of Virginia. She has also completed post-graduate work in immunology and virology at the University of Virginia and the University of Tennessee, respectively. Dr. Freire has devoted her career to improving health and health research on a global scale.

Julio Frenk, M.D., M.P.H., Ph.D., became the sixth President of the University of Miami on August 16, 2015. From 2009 to 2015, he was Dean of the Harvard T.H. Chan School of Public Health and T & G Angelopoulos Professor of Public Health and International Development, a joint appointment with the Harvard Kennedy School of Government. Dr. Frenk served as Minister of Health of Mexico from 2000 to 2006, where he pursued an ambitious agenda to reform the health system, with an emphasis on redressing social inequality. He was the founding Director-General of the National Institute of Public Health of Mexico and has held leadership positions at the Mexican Health Foundation, the World Health Organization, the Bill and Melinda Gates Foundation, and the Carso Health Institute. President Frenk holds a medical degree from the National Autonomous University of Mexico, as well as a Masters of Public Health and a joint doctorate in Medical Care Organization and in Sociology from the University of Michigan. He has received five honorary doctorates and is a member of the American Academy of Arts and Sciences, the U.S. National Academy of Medicine, and the National Academy of Medicine of Mexico. Dr. Frenk is the author of 34 books and monographs, 75 book chapters, 152 articles in academic journals, and 126 articles in cultural periodicals and newspapers. In September of 2008, he received the Clinton Global Citizen Award for changing “the way practitioners and policy makers across the world think about health.”

Lawrence O. Gostin, J.D., is University Professor, Georgetown University’s highest academic rank conferred by the University President. Prof. Gostin directs the O’Neill Institute for National and Global Health Law and is the Founding O’Neill Chair in Global Health Law. He served as Associate Dean for Research at Georgetown Law from 2004 to 2008. He is Professor of Medicine at Georgetown University and Professor of Public Health at the Johns Hopkins University.

Dr. Gostin is the Director of the World Health Organization Collaborating Center on Public Health Law & Human Rights. The WHO Director-General has appointed Dr. Gostin to high-level positions, including the International Health Regulations Roster of Experts and the Expert Advisory Panel on Mental Health. He served on the Director-General’s Advisory Committee on Reforming the World Health Organization, as well as numerous expert advisory committees on the Pandemic Influenza Preparedness Framework, smallpox, and genomic sequencing data. He is a member of the WHO/ Global Fund Blue Ribbon Expert Panel entitled The Equitable Access Initiative to develop a global health equity framework.

Dr. Gostin serves on the Independent Panel on the Global Response to Ebola (Harvard University/London School of Hygiene and Tropical Medicine). Dr. Gostin holds a number of international academic professorial appointments: Visiting Professor (Faculty of Medical Sciences) and Research Fellow (Centre for Socio-Legal Studies) at the University of Oxford, United Kingdom; the Claude Leon Foundation Distinguished Scholar and Visiting Professor at the University of Witwatersrand, Johannesburg, South Africa; and the Miegunyah Distinguished

Visiting Fellow and Founding Fellow of the Centre for Advanced Studies (Trinity College), University of Melbourne. Prof. Gostin serves as Secretary and a member of the Governing Board of Directors of the Consortium of Universities for Global Health.

Dr. Gostin holds numerous editorial appointments in leading academic journals throughout the world. His principal position is the Health Law and Ethics Editor, Contributing Writer, and Columnist for the *Journal of the American Medical Association*. He is also Founding Editor-in-Chief of *Laws* (an international open access law journal). He was formally the Editor-in-Chief of the *Journal of Law, Medicine & Ethics*. Dr. Gostin holds four honorary degrees. In 1994, the Chancellor of the State University of New York conferred an Honorary Doctor of Laws Degree. In 2006, Her Majesty Queen Elizabeth II and the Vice Chancellor awarded Cardiff University's (Wales) highest honor, an Honorary Fellow. In 2007, the Royal Institute of Public Health (United Kingdom) designated Prof. Gostin as a Fellow of the Royal Society of Public Health (FRSPH). In 2012, the Chancellor of the University of Sydney—on the nomination of the Deans of the Law and Medical Schools—conferred a Doctor of Laws (honoris causa) in the presence of two Justices of Australia's highest court—Justices Kirby and Haydon.

Dr. Gostin is an elected lifetime Member of the National Academy of Medicine (formerly Institute of Medicine) of the National Academy of Sciences. He has served on the National Academy's Board on Health Sciences Policy, the Board on Population Health and Public Health Practice, the Human Subjects Review Board, and the Committee on Science, Technology, and Law. He chaired the National Academy's Committee on Global Solutions to Falsified, Substandard, and Counterfeit Medicines. He has chaired National Academy Committees on national preparedness for mass disasters, health informational privacy, public health genomics, and human subject research on prisoners.

The National Academy of Medicine awarded Dr. Gostin the Adam Yarmolinsky Medal for distinguished service to further its mission of science and health. He received the Public Health Law Association's Distinguished Lifetime Achievement Award "in recognition of a career devoted to using law to improve the public's health" presented at the CDC. The New York Public Health Law Association conferred the Distinguished Lifetime Achievement Award for extraordinary service to improve the public's health.

Dr. Gostin is also a lifetime elected Member of the Council of Foreign Relations (providing independent advice to governments on foreign policy) and a Fellow of the Hastings Center (for bioethics and public policy). Internationally, Prof. Gostin received the Rosemary Delbridge Memorial Award from the National Consumer Council (United Kingdom) for the person "who has most influenced Parliament and government to act for the welfare of society." He also received the Key to Tohoko University (Japan) for distinguished service for human rights in mental health.

Dr. Gostin has led major law reform initiatives in the U.S., including the drafting of the Model Emergency Health Powers Act (MEHPA) to combat bioterrorism and the "Turning Point" Model State Public Health Act. He is also leading a drafting team for the World Health Organization and International Development Law Organization, Advancing the Right to Health Through Public Health Law. Dr. Gostin's proposal for a Framework Convention on Global Health—an international treaty ensuring the right to health—is now part of a global campaign, endorsed by the United Nations (UN) Secretary-General and Director of the joint United Nations Programme on HIV/AIDS (UNAIDS).

In the United Kingdom, Lawrence Gostin was the Legal Director of the National Association for Mental Health, Director of the National Council of Civil Liberties (the UK equivalent of the ACLU), and a Fellow at Oxford University. He drafted the current Mental Health Act (England and Wales) and brought several landmark cases before the European Court of Human Rights.

Dr. Gostin's latest books are: *Global Health Law* (Harvard University Press, 2014; Chinese translation due in 2016); *Public Health Law: Power, Duty, Restraint* (University of

California Press, 3rd ed. Forthcoming 2016); *Public Health Law and Ethics: A Reader* (University of California Press, 2nd ed., 2010); *Law and the Health System* (Foundation Press, 2014); *Principles of Mental Health Law & Practice* (Oxford University Press, 2010). Paul Farmer, Partners in Health, says of his latest book: *Global Health Law* is “more than the definitive book on a dynamic field. Gostin harnesses the power of international law and human rights as tools to close unconscionable health inequities—the injustices that burden marginalized populations throughout the world. Gostin presents a forceful vision, one that deserves a wide embrace.”

In a 2012 systematic empirical analysis of legal scholarship, independent researchers ranked Dr. Gostin 1st in the nation in productivity among all law professors, and 11th in in impact and influence.

Gabriel Leung, M.D., M.P.H., became the fortieth Dean of the Li Ka Shing Faculty of Medicine at the University of Hong Kong in 2013. Leung, a clinician and a respected public health authority, concurrently holds the Chair of Public Health Medicine. Previously he was Professor and Head of Community Medicine at the University and served as Hong Kong’s first Under Secretary for Food and Health and fifth Director of the Chief Executive’s Office in government.

Dr. Leung is one of Asia’s leading epidemiologists, having authored more than 400 scholarly papers and edited numerous journals. His research defined the epidemiology of two novel viral epidemics, namely SARS coronavirus in 2003 and influenza A (H7N9) in 2013. While in government, he led Hong Kong’s policy response against the 2009 influenza A (H1N1) pandemic. Leung currently directs the University’s WHO Collaborating Centre for Infectious Disease Epidemiology and Control. He was inaugural Chair of the Asia Pacific Observatory on Health Systems and Policies during 2010–2014. He regularly advises national and international agencies including the World Health Organization, World Bank, Asian Development Bank and the Chinese Center for Disease Control and Prevention.

Francis Omaswa, MB BCh, MMed, FRCS, FCS, is the Executive Director of the African Centre for Global Health and Social Transformation (ACHEST), an initiative based in Uganda and promoted by a network of African and International leaders in health and development. Until May 2008, Dr. Omaswa was Special Adviser to the WHO Director General and founding Executive Director of the Global Health Workforce Alliance (GHWA). Before joining GHWA, he was the Director General for Health Services in the Ministry of Health in Uganda during which time he was responsible for coordinating and implementing major reforms in the health sector in Uganda which included the introduction of Sector-Wide Approaches (SWAs), quality assurance, and decentralization. Dr. Omaswa has a keen interest in access of the poor to basic health care and spent 5 years in the rural Ngora hospital testing approaches for this. He is active in the global health community, and served as founding chair, and later served as Vice-Chairman, of the Global Stop TB Partnership Board; was one of the architects of the Global Fund to Fight AIDS, TB and Malaria and served as Chair of the Portfolio and Procurement Committee of the Global Fund Board; was a member of the steering committee of the High Level Forum on health-related Millennium Development Goals; and participated in the drafting the Paris Declaration on Aid Effectiveness. Dr. Omaswa is a graduate of Makerere Medical School, Kampala, Uganda, a Fellow of the Royal College of Surgeons of Edinburgh, founding President of the College of Surgeons of East, Central and Southern Africa, is a Senior Associate at the Johns Hopkins Bloomberg School of Public Health, International Member of the National Academy of Sciences, USA and Fellow of the Uganda Academy of Science.

Melissa Parker, DPhil, is Reader in Medical Anthropology at the London School of Hygiene and Tropical Medicine. During the Ebola outbreak, she created an online portal—the Ebola Response Anthropology Platform—that helps health workers and anthropologists work more effectively together by providing rapid, practical information about the socio-cultural, historical,

economic and political dimensions of Ebola. Over the past 25 years, she has undertaken multi-disciplinary and collaborative research in African and European settings. A unifying theme is the study of global health and international development. Research questions have typically emerged from extensive periods of ethnographic fieldwork, and engage with global health policies and practice. Topics investigated include HIV/AIDS in the United Kingdom, mental health in war zones, health-related quality of life in Kenya, female circumcision in Sudan, and the control of neglected tropical diseases in Sudan, Uganda and Tanzania.

Sujatha Rao, M.A., M.P.A., joined the Indian Administrative Service in 1974. In her career span of 36 years, she worked in the health sector since 1988-93 when she was deputed to the Ministry of Health and Family Welfare, Government of India as Director and later as Joint Secretary. From 1993–1996 she worked as Secretary, Family Welfare in Govt. of Andhra Pradesh and from 1998–2003 she was deputed again to work as Joint Secretary in the Ministry of Health & Family Welfare, Government of India. In 2004 she was nominated by the government of India as Member Secretary of the National Commission on Macroeconomics which was cochaired by Union Ministers of Health and Finance. The report of this commission became the basis for much of the health sector reform. In 2005, after a short stint as Secretary of Health in the state government, she was back again to the federal government as Additional Secretary and later Secretary & Director General Department of AIDS Control from 2005 until 2009. Ms. Rao was posted as Union Secretary, Ministry of Health and Family Welfare in 2009 until her retirement from government service on 30th November 2010.

Ms. Rao was nominated as Vice-Chairman of the Global Advisory Group on Nursing and Midwifery by the WHO as a public health expert for 2000-2001. She was elected as chairperson of the Portfolio Committee of the Global Fund to Fight AIDS, TB and Malaria for two years (2007-2009). In 2008, she was invited to be a member of the six member Global Advisory Panel of the Bill & Melinda Gates Foundation, on which she served until 2011. She was the founding board member of the Public Health Foundation of India and worked on its board from its inception in 2006 until 2011. She was Co-chair of the WHO's Advisory Panel on Developing a Global Health Systems Research Strategy, Geneva, 2011. She represented India on the Boards of the WHO, Global Fund, and UNAIDS. She is currently a Trustee of the Population Council International, New York, 2011; Member of the Advisory Board of the Ministerial Leadership Program of the Harvard School of Public Health, Member of the Economic Reference Group on HIV/AIDS, and Member of the Chief Minister's Advisory Council on Health. Ms. Rao did her post-graduation from Delhi University and has a Master's Degree in Public Administration from Harvard University. She was also a Takemi Fellow at the Harvard School of Public Health during 2001-2002. In 2012, she was a Gro Harlem Brundtland Senior Leadership Fellow at the Harvard School of Public Health, USA. Ms. Rao has published several papers and articles on health and public policy matters. She was a co-author of 'India Health Report' published by Oxford University Press in 2003.

Daniel Ryan, M.A., is Head of R&D–Life, Health & Big Data at Swiss Re, having joined in August 2010. He was previously Head of Mortality Consulting and Research at Towers Watson, and was the founder and principal investigator for 8 years of an innovative research group for insurers and reinsurers that addressed key issues on mortality and morbidity risk, product innovation and forward-looking scenario development. Mr. Ryan leads a multi-disciplinary group that is engaged in research collaborations on such topics as pandemic risk modeling, behavioral economics, genetic testing, and the relative importance of risk factors and treatments in different diseases in driving further increases in life expectancy. His research group was expanded in 2014 with the establishment of the Big Data & Smart Analytics Centre. The Centre has responsibility across the different risk classes covered by Swiss Re from individual risk to natural catastrophes to corporate liability. The Centre acts as a catalyst on the use of structured

and unstructured data sources by Swiss Re to develop new analytical techniques that enhance underwriting capabilities. Mr. Ryan has an M.A. in Medical Sciences from Cambridge University, and was on the World Economic Forum's Global Agenda Council for Ageing for 4 years.

Jeanette Vega, M.D., M.P.H., Ph.D., has been the Director of Fonasa, the National Chilean Public Health Insurance Agency since March 2014. Dr. Vega has over 20 years of experience in international health. Her areas of expertise include social determinants of health, health equity, and health systems. Prior to being appointed as Director of Fonasa by President Michelle Bachelet, Dr. Vega served as Managing Director of Health at the Rockefeller Foundation. She was Vice Minister of Health in Chile, between 2008 and 2010, leading the country's 13-step agenda for equity in health. Before that, Dr. Vega served as a Director at the World Health Organization in Geneva, where she led the equity in health agenda, looking at the social determinants of health and health systems. Dr. Vega started her career as a medical doctor in Chile specializing in Family Medicine. She has a master's degree in Public Health from the Universidad de Chile and a Ph.D. in Public Health from the University of Illinois at Chicago.

Suwit Wibulpolprasert, M.D., is a general practitioner, public health specialist, administrator, and policy advocate. He began his career as a Director and practitioner in four rural district hospitals in Thailand from 1977-1985. Later, he was the Director of the North Eastern Public Health College, Director of the Food and Drug Administration Technical Division, Director of the Bureau of Health Policy and Plan, Assistant Permanent Secretary, Deputy Permanent Secretary, and the senior expert in Disease Control of the Ministry of Public Health. His current position is the vice chair of the International Health Policy Foundation. He has been proactively working in public health area for more than three decades from the grassroots of the health system to the highest policy level. In parallel with working for the development of health in country, he is a global health leader who is well-known in the public eye as the forefront fighter to protect the benefit of the poor. His experiences which gain from real actions and hard work contribute significantly in Thailand's health system development. He plays important roles in many humanitarian emergencies in Thailand as follows:

1. In Avian influenza outbreak in Asia, there was a breakthrough strategy in disease surveillance which never occurred before. The first joint investigation between two neighboring countries was done and the information was shared transparently under the support by MBDS and he is a key person who facilitates this initiation and bilateral collaboration as a co-founder of the Mekong Basin Disease Surveillance Network (MBDS).
2. In Thailand's policy development and implementation in pandemic influenza preparedness, Dr. Suwit as the chair of the National Pandemic Influenza Preparedness Plan Development Committee, he and relevant stakeholders recognized the importance of the preparedness in the systematic approach to prepare for Thailand's capacity in all key areas. It started from the development of the first national plan for PIP including other emerging infectious diseases and considering this plan to build on country's capacity in dealing with other humanitarian emergencies. All jigsaws have been mapped including research and development, strengthening surveillance and IHR core capacities, improving the health care system and human resources for health based on OneHealth concept. A good example of this comprehensive strategy is Thailand's long vision on vaccine security in pandemic crisis. The domestic development of influenza vaccines has been launched in parallel with the policy to drive vaccine demand.
3. As the co-founder and the first chair APAIR (Asia Pacific Avian Influenza Research), he and his team has been working on multi-national and multidisciplinary researches ranging from biomedical, health economics and social sciences. This research will be

the essential input for national policy development and support the implementation in our country.

4. In terms of health system development and strengthening, he is one of the most experienced health system specialists and has involved and contributed in Thailand's health system development. He always reiterates that Thailand's health system has to be resilient and capable to support and deal with health emergencies. Therefore many programs have been implemented to prepare health facilities and health system to be well-established for humanitarian crisis. At global level, he used to be the Vice Chair of the WHO Executive Board, and the Vice Chair of the board of the Global Fund to fight AIDS, TB and Malaria. He is a member of the Chatham House "GH governance in the future". He is the one who is knowledgeable and well-understood in GH governance. His valuable experience at global level, his dedication for Thailand's health system development, and his work to support developing countries will be beneficial for the further development of the global risk framework. He is the real actor from the ground who believes that "The secret of getting things done is to act."

Tadataka "Tachi" Yamada, M.D., is a Venture Partner with Frazier Healthcare Partners. Prior to joining Frazier he was Executive Vice-President, Chief Medical & Scientific Officer and a Board Member of Takeda Pharmaceuticals. Dr. Yamada has served as President of the Bill & Melinda Gates Foundation Global Health Program. In this position, he oversaw grants totaling more than \$9 billion in programs directed at applying technologies to address major health challenges of the developing world including TB, HIV, malaria and other infectious diseases, malnutrition and maternal and child health. He was formerly Chairman, Research and Development and a Member of the Board of Directors of GlaxoSmithKline and before that he was Chair of the Department of Internal Medicine and Physician-in-Chief at the University of Michigan Medical Center. Dr. Yamada holds a bachelor's degree in history from Stanford University and obtained his M.D. from New York University School of Medicine. In recognition of his contributions to medicine and science he has been elected to membership in the National Academy of Medicine (United States), the Academy of Medical Sciences (United Kingdom) and the National Academy of Medicine (Mexico) and he has received an honorary appointment as Knight Commander of the Most Excellent Order of the British Empire (KBE). He is a Past-President of the Association of American Physicians and of the American Gastroenterological Association and he has served as a member of the President's Council of Advisors on Science and Technology and the Advisory Committee to the Director of the National Institutes of Health. He is currently Vice Chair of the Council of the National Academy of Medicine and serves on the Board of Directors of the Clinton Health Access Initiative.