Webinar Summary: Global collaboration against the pandemic
28th October 2020
Event page: https://dajf.org.uk/event/global-collaboration-against-the-pandemic
YouTube: https://www.youtube.com/watch?v=qEv1ncjSLq4&feature=youtu.be

On 28th October 2020, the Daiwa Foundation hosted a webinar titled, "Global collaboration against the pandemic." Guest speakers included Dr Stuart Blume, Emeritus Professor of Science and Technology Studies at the University of Amsterdam and Dr Osamu Kunii, Head of Strategy, Investment & Impact Division, at the Global Fund.

Speaker: Dr Kunii

Covid-19 statistics

The webinar commenced with Dr Kunii's presentation. He started by showing the current Covid-19 statistics, with the total confirmed cases at 44 million and total deaths at 1.1 million, with daily cases and daily deaths still increasing, especially in the past 2 weeks. He explained how the top cause of deaths among all infectious diseases is currently Tuberculosis, with 1.5 million deaths per year. However, Covid-19 is indeed catching up and may exceed this soon. In terms of average deaths per day worldwide, Covid-19 is currently at the top of the ranking of deaths from infectious diseases with more than 3,475 deaths per day. In the past, HIV, Tuberculosis, and Malaria were known as the three biggest killers among infectious diseases with over 15,000 deaths per day. However, with Covid-19 this ranking has completely changed, with Covid-19 now sitting at the top.

Dr Kunii then explained how during his time working in South America, Africa, and Asia he has come across various other terrible infectious diseases in terms of case fatality rate. He noted how many infectious diseases have a higher fatality rate than Covid-19. However, Covid-19 is indeed dreadful in terms of its potential to spread and infect others with symptoms not showing immediately. Furthermore, indirect deaths as a result of Covid-19 are also high due to the disruption of services to cope with other diseases. Dr Kunii presented us with a chart, indicating the potential increase in Tuberculosis (TB) deaths due to Covid-19. He explained how this chart showed that the number of deaths of HIV, Tuberculosis, and Malaria will potentially be doubled by next year, eliminating approximately 10 years of TB progress. He also explained how weekly monitoring of the situation in the Philippines has found that Covid-19's impact on the services of detecting and diagnosing Tuberculosis has resulted in missing of cases.

Access to Covid-19 Tools (ACT)

Dr Kunii explained how many international organisations, academia, and the public and private sectors are supporting "Access to Covid-19 Tools (ACT)." Key targets have been set in the fields of vaccines, therapeutics, and diagnostics with the key goals being: 2 billion Vaccines by the end of 2021, 245 million effective therapeutics by mid-2021, and 500 million diagnostics by mid-2021. The estimated target to provide these three pillars of tools to more than 100 low- and middle-income countries is 38 billion US dollars. However, unfortunately only 4 billion was pledged so only 1/10 of the target has so far been filled.

In terms of progress for the Diagnostics pillar, automated molecular PCR test machines have been provided to low and middle income countries for Covid-19 testing. The tests are

inexpensive at up to 5 US dollars per test and with rapid testing at 15-30 mins per test. Many international organisations such as WHO, Bill & Melinda Gates Foundation and Africa CDC are helping to support this pillar.

Global Fund's support: With the Covid-19 situation it is not possible to wait for the full budget while only 1/10 of the financial target has been pledged. However, Global fund is doing great work providing support for testing, tracing, isolation services, and training support for prevention of infection in lab and healthcare workers, providing personal protective equipment, diagnostics, and therapeutics.

Turning crisis into chance

Dr Kunii ended on the note that we can "Turn crisis into Chance." In other words, focused global efforts and collaborations to tackle Covid-19 may have positive effects on numerous other sectors including data-sharing, potential for self-testing, digital health, and numerous others.

Speaker: Dr Blume

Vaccine Progress

Dr Blume began by noting that one of the few gratifying aspects of our situation is the astonishing progress that has been made in attempting to develop an effective vaccine. Normally, development of a new vaccine takes 5-8 years. However, in 9 months we are at a position in which there are approximately 200 candidate vaccines under development, of which more than 40 are being tested on people in clinical trials. In fact, 10 are already in the very last stage of clinical testing. This is a speed of progress unparalleled in history.

Issues that coincide with extreme faith in a Vaccine

Dr Blume informed us about what kind of analysis historians and social scientists can perform with the current pandemic. He noted that one of the responsibilities as an analyst of society is to question the things that are taken for granted. At the start of the pandemic the message that was constantly reiterated by politicians and the media was that when there is a vaccine all would be well again. However, Dr Blume questioned what logical and scientific grounds we have for placing so much faith in a vaccine. Over many decades we have been led to believe that all problems of infectious diseases will vanish with a vaccine. This deeply ingrained faith can be seen reflected in popular culture with examples such as the movie *Contagion* (2011). Indeed, vaccines can save millions of lives. However, the problem with placing such faith in vaccines is that it comes with the risk of great disappointment.

Dr Blume went on to discuss how a study of the history of vaccines should have shown immediately that there would be problems once a vaccine is developed. These include technical problems of scaling up supply adequately and other issues such as agreeing and ensuring a fair, equitable distribution of an initially limited vaccine supply, both between countries and within countries in order to avoid monopolisations of limited supplies by rich countries and social elites. A study of the history of vaccines also reveals the issue of the possibility of side effects and the question of responsibility for taking care of those side effects. There is also the issue of the aspects of a pandemic that will not be solved by a vaccine such as economic devastation, growing inequality, and psycho-social problems due to a lack of social contact. Dr Blume asked us to consider whether we have been ill prepared to deal with these side effects of the pandemic because we focused so completely, exclusively, and faithfully on a vaccine as the solution.

Reasons behind “Vaccine hesitancy”

Dr Blume next went on to discuss Vaccine hesitancy. He explained how large numbers of people in many countries would not accept a vaccine and in some countries, this has been as high as 50%. He stated that there is a key issue when public health authorities approach social scientists asking them how to best convince people that vaccination is a good thing. This issue is that these authorities are assuming that people who refuse vaccines are making misguided decisions due to being ill-informed, ignorant, or somehow prejudiced. However, Dr Blume argued that part of the responsibility may in fact be rooted in the way that official institutions work and that if we analyse the rise of doubts and anxieties surrounding vaccinations, so called “vaccine hesitancy,” we see that these started to emerge in the 1980s and rose in parallel with declining faith in political institutions, the rise of right-wing populism, conspiracy theories, reduction in the accessibility of health services, and a transformation in how and by whom vaccines are produced. Dr Blume elaborated that there has indeed been something of a de-coupling between people’s health concerns and needs and the actual vaccines that have been produced and introduced into vaccination programmes. Many of the vaccines that we have been given over the past 20 to 30 years, however good, have not been in response to people’s major health concerns. All of these factors, such as changes in the legitimacy of political systems, accessibility of health care, and transformations in the system of vaccine development have contributed to vaccine hesitancy.

The real “test” of the pandemic

Dr Blume noted that this pandemic has occurred at a time of declining multilateralism and we must be aware of the rise of vaccine nationalism against which the WHO is warning. He explained that if we step back and look at history, it becomes apparent that at the height of the cold war, scientists and medical professionals from both sides of the ideological divide were perfectly able to collaborate in the development of polio vaccines and the eradication of smallpox. Accompanying that was an attempt on the part of politicians on both sides to turn success in combating disease into an indicator of the ideological superiority of their respective political systems. At present, being the first to produce and distribute a vaccine is perceived as saying something positive about the economic and political system that gave rise to it.

However, this pandemic does not have a “winner.” The real test of the collaborative mechanisms that have been created is less in the area of producing a vaccine, but in the willingness to transcend nationalistic interests. Furthermore it will be in distributing a vaccine equitably between communities, regaining people’s trust, and reassuring them that if they do suffer side-effects, they will not have to bear the financial consequences. Finally, the real test will be how to tackle all the pandemic-related social and mental health issues for which there is no vaccine.

Question and Answer Section

The first question asked was directly linked to the issue Dr Blume had previously raised about global cooperation and the distribution of a potential vaccine. The participant explained how they were discouraged by what occurred in the early stages of the pandemic, when there was a global shortage of personal protective equipment (PPE) such as masks, with countries keeping their own supplies to themselves. While this was solved over time with manufacturers stepping up PPE production, the question was raised whether we are liable to go through the same experience with a potential vaccine. Dr Blume’s response stressed that we must take care to avoid such a situation, and that the question that remains is whether our political leaders are willing to listen. Dr Blume also explained that he has previously voiced his desire for more discussion regarding what happens within countries, especially federalised.states. At

present, it is common to prioritise essential health workers, the elderly and the vulnerable; however, in a federalised state there is the potential that people will desire to divide a potential vaccine equally between all districts, or that places with the highest incidence may be prioritised. In such an instance, the millions of people living in refugee camps who may become a source of reinfection are likely to be forgotten. Dr Blume stressed how all of these are discussions that we did not have early on and though maybe they are starting to be raised now, it is slightly too late.

Dr Blume went on to state two key points in regard to gaining confidence in a vaccine. Firstly, at present, contracts that governments and international organisations have signed with manufacturers are not transparent. The various governments of Europe have all signed independent contracts with manufacturers, separate from the contracts that the EU has made and separate from the contracts that the multinational institutions have, and nothing is publicly known about what has been agreed. Secondly, side effects are also an issue. Dr Blume referenced a previous article he wrote regarding the Mexican Flu, H1N1, in which a vaccine called Pandemrix is believed to have caused narcolepsy in approximately 1,000 people. In this instance it became clear that the contracts that governments had signed with manufacturers meant that the manufacturers had no financial responsibility for these side effects. It is possible that small groups will develop side effects from a potential vaccine and there needs to be reassurance for not only manufacturers but also the general population. Dr Kunii also added that he was concerned about the process of producing a vaccine being rushed.

One participant also asked about the US election and whether a Biden victory would help in terms of global cooperation. Dr Blume explained how he finds it to be a great shame that this pandemic has come at a time of reduced faith in multilateral institutions because this is most certainly a time when collaboration is key.

Another question raised the concern that “In order to distribute the vaccine, the WHO would first have to obtain it. If vaccines are produced in a certain country how does the WHO gain access to that supply without that country providing it to its own population first?” Dr Kunii explained that usually in low income countries this distribution is the role of UNICEF, various NGOs, and the government. However, with Covid-19 a massive number of vaccines will need to be distributed in a very short time. In order to do this a much broader network needs to be established to cover the logistics, quality assurance, and so on. Regarding the effectiveness of a vaccine, the US FDA may approve one even if the efficacy of the vaccine is 50%, and 100% efficacy may indeed be challenging. In other words, the development of a safe and effective vaccine is not the end of the story, but the start.

The next question concerned the tests mentioned in Dr Kunii’s presentation. Dr Kunii had previously discussed PCR tests and the question asked whether the rapid diagnostic tests that Dr Kunii’s organisation has been developing are also PCR tests or a different type of test. The issue of accuracy was also raised as there is the suggestion that even a fairly low level of false positives, 1% or less, may cause a significant distortion to the overall statistics in a given country. Dr Kunii explained how a false negative is a huge issue and that even PCR tests can produce 20%-30% false negative. He noted that we must be very careful as testing is not a perfect answer and should be used as just one of the tools in our repertoire for the fight against Covid-19.

One participant referenced the BBC's report about how researchers at Imperial College London noticed a massive fall in antibodies in the people they had been testing between June and September which may indicate that immunity against the Coronavirus only lasts a few months after infection. They asked what the consequences of this research may be for vaccines and whether vaccines would also lose their efficacy after a few months. Dr Kunii's reply noted that even top immunologists would struggle to answer this question as the research is still in progress. However, it does seem that antibodies are not the only factor playing a role and that is why a vaccine is not the perfect answer. He noted how in the 1990s with HIV/AIDS, Thailand could suppress the epidemic without distributing medicine or a medical vaccine in a policy which called a "social vaccine," in other words using a package of non-medical interventions such as physical contraceptives (condoms) and educational programmes. Dr Kunii explained how this is likely the key to cracking Covid-19 as well, using a mixture of interventions. These include social distancing, masks, and lockdown. He also noted how these "social vaccines" should be customised to each country with a package of interventions that match the cultures and customs of each respective country. Dr Blume agreed but noted his concern that vaccines are profitable while politicians do not like to impose financially unprofitable social interventions. He also raised the issue of how we should focus more on finding the direct cause and root of pandemics instead of constantly fighting just the aftermath.

The next question raised the concern of "vaccine diplomacy" becoming dominant with countries utilising vaccines as a political tool to forge alliances. Dr Blume explained how this has already happened: health related diplomacy has been around for years, and this situation will simply enhance the claims made for this.

One question referred to Dr Blume's statement that the uptake of vaccines in some countries is likely to be as low as 50%. The question asked what the implications of such a low uptake would be. Dr Kunii explained that 50% vaccine hesitancy is very commonly seen and that in the US many women have already raised concerns about using a Covid-19 vaccine. However, immunising all the population with this vaccine is not necessarily needed, prioritising health workers first and then the elderly and high-risk people would be ideal. Indeed, prioritising pockets of the population and persuading them how important the vaccine is for their work to continue is best. Dr Kunii again rang home the point that the vaccine is not the only answer and that a "social vaccine" should be the key.

The next question asked whether vaccines are inherently profitable for the manufacturers or because organisations such as WHO or the Global fund buy enough of them to make them profitable. Dr Blume responded that vaccines become profitable because of the scale of the production. New vaccines are mostly priced high with some vaccines requiring a great deal of political pressure to bring the price down.

The final question asked what needs to be changed in terms of global cooperation so that the response to Covid-19 would be more efficient going forward. Dr Blume said one of the great tragedies of the last few years has been a loss of faith in multilateral institutions. The WHO has lost its moral authority and now there are a host of global organisations which share this authority with many of these being based primarily on mere resources rather than any form of representative character. This question is what will become key in terms of global health

diplomacy – how can we bring about a more effective and far-reaching multilateral collaboration with the institutions we have already? Dr Kunii added that compared to March and April, we now know much about Covid-19. More than 10,000 journals have been produced and we have more data on the "enemy." Cases may have increased with the second wave, but deaths have decreased, meaning we have learned how to combat Covid-19 to some degree. We do need a customised way of combatting Covid-19 in each country, and yet at the same time, risk tolerance and management for certain groups within society will be important, with the risk for young people being low, while elderly, obese, or other high-risk patients need to be more careful of the risk. Dr Kunii also explained how this is an important time for open discussion between experts such as scientists, historians, and politicians on how to tackle the indirect causes of Covid-19 as these will cause much agony within the human population and we must view Covid-19 as a global issue.

About the Speakers

Dr Osamu Kunii:

Dr Osamu Kunii is Head of Strategy, Investment & Impact Division, at the Global Fund. His distinguished career encompasses more than 25 years of experience in global health and development in over 110 countries around the world. He started his career by serving as clinician and humanitarian worker in emergencies through NGO, and then moved to public health in disaster epidemiology, infectious diseases control and health system, and to health development assistance policy making as Assistant Director in the Japan Ministry of Foreign Affairs and health strategy development as Senior Health Strategy Advisor at UNICEF headquarter. He also served as Assistant Professor of International Health in the University of Tokyo and Professor of Global Health in the Institute of Tropical Medicine, Nagasaki University. He has extensive field experiences, especially living in India, Brazil, Myanmar and Kenya through NGO, Japan International Cooperation Agency and UNICEF. He obtained a medical degree from Jichi Medical School, a master of public health from Harvard School of Public Health, and a doctor of philosophy from the University of Tokyo.

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Dr Stuart Blume:

Dr Stuart Blume is emeritus professor of science and technology studies at the University of Amsterdam and author of *Immunization: How Vaccines Became Controversial*. After an Oxford D.Phil in chemistry he moved into the fields of science policy and the sociology of science, working at the University of Sussex, the OECD in Paris, and in various British government departments, including the Cabinet Office (1975-77) and from 1977 to 1980 as Research Secretary of the committee on Social Inequalities in Health (the 'Black Committee'). Since then his research has focused principally on the development and introduction of new health care technologies. He has been an advisor on Bioethics to the World Federation of the Deaf, and visiting researcher at the Universities of Oslo, Orebrö and Cuenca (Ecuador). https://www.uva.nl/en/profile/b/l/s.s.blume/s.s.blume.html?cb&fbclid=IwAR3ieqcrYb06SZ_Rc9dmpvXWAwJonf8WaWwplqJv5wmwce97K4QOVxcakwg