

COVID-19 vaccine introduction and acceptance

Virtual Event Series

Webinar online, 29 March 2021

The Mérieux Foundation Vaccine Acceptance Initiative

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CONTENTS

Note to the reader	3
Background	4
Corona vaccines - Israeli and global perspectives	
Discussion	8
Trust in the Age of COVID-19	9
Discussion	11
COVID-19 vaccination in the Philippines: a year on in the pandemic and the imperative	s of
solidarity and equity	13
COVID-19 vaccine introduction scenario in Argentina: challenges and opportunities	15
Panel discussion	16

Note to the reader

This report condenses discussions according to the themes addressed rather than attempting a chronological account. It addresses points emerging from wide-ranging discussions held during the event and does not necessarily imply consensus.

Summaries of presentations and of points made during the discussion are presented as the opinions expressed; no judgement is implied as to their veracity.

The content of this report was validated with the participant speakers.

Background

The Mérieux Foundation Vaccine Acceptance Virtual Event Series aims to establish and maintain dialogue and increase multi-sectoral efforts to promote vaccination acceptance and increase the resilience of immunization programmes, which are facing particular challenges in the context of the ongoing pandemic of coronavirus disease 2019, or COVID-19.

The erosion in vaccination trust during the current COVID-19 pandemic is an increasing threat to public health and a major obstacle to the only route out of the pandemic. Ideas and solutions are needed in order to tackle it. As a contribution to this critical goal, the Mérieux Foundation brought together a global audience and a panel of distinguished representatives of the scientific, public health and private sectors in two two-and-a-half-hour webinars to discuss issues around the introduction and acceptance of COVID-19 vaccines.

"COVID19 Vaccine Introduction & Acceptance"

Webinar Program - condensed version

Session 1&2: March 29, 2021

Welcome Session Chair: Dr. Katie Atwell

UWA political scientist and DECRA fellow

University of Western Australia

Keynote Speaker: Dr. Gabi Barbash

Director, Bench to Bedside Program

Weizmann Institute of Science, Rehovot, Israel

On: Corona vaccines - Israeli and global perspectives

Q&A: 10-15 min

Lecture Speakers: Mme. Carolyn Paul

Global Managing Director and EMEA Health Chair at Edelman

Edelman, UK

On: Trust in the Age of COVID

Q&A: 5-10 min

Dr. Nina Castillo Carandang

Health Social Scientist and Professor

College of Medicine, University of the Philippines

On: COVID-19 vaccination in the Philippines: A year on in the pandemic

and the imperatives of solidarity & equity

Q&A: 5-10 min

Dr Romina Libster

Pediatric Investigator - Vaccine & Respiratory Viruses Research

Fundación INFANT, Argentina

On: Covid19 Vaccine introduction Scenario in Argentina: Challenges &

Opportunities Q&A: 5-10 min

Panel Discussion

(30 min)

All Speakers & Session chair

Closing

Mérieux Foundation Convenor: Valentina Picot, Vaccine Acceptance Initiative Lead

Marianne Gojon-Gerbelot, Vaccine Acceptance Coordinator

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Corona vaccines - Israeli and global perspectives

Gabi Barbash, Director, Bench to Bedside Program, Weizmann Institute of Science, Rehovot, Israel

While history shows that there are no perfect vaccines, it also shows that vaccines do not need to be perfect to save millions of lives; and for COVID-19 there is already a range of vaccines with incredible effectiveness, way better than for vast majority of diseases.

In that it has required many of us to change our opinions and messages in light of constantly changing and emerging information, COVID-19 teaches us humility. Humanity is running a desperate race between vaccines and virus mutations around the world. For each new Corona variants there are three key questions: are they more transmissible? Are they more virulent, or do they cause more severe disease or mortality? and can they evade vaccines? The answers to the latter question are not yet clear for existing variants, and vary between vaccines. In clinical trials, for example, vaccines are less effective against the so-called "South African" and "Brazil" variants.

Vaccines are only way out of the pandemic. Despite this, however, a third of the world population does not want them. Some of these people are hardcore anti-vaccination dedicants, a difficult audience; but most are simply hesitant, want to wait to see how it works, and remain open to persuasion. The last year has been illuminating as to the nature and degree of information wars in the social media age: a high degree of information pollution around vaccines is now deliberate and well orchestrated, something that should have profound impacts on public health messaging. The task now is not only to counter ignorance, but also to fight against people very deliberately trying to undermine public health. This also has huge equity ramifications: minorities are disproportionally affected, often because of a justifiable historical mistrust of medicine and state systems.

Trust is a central issue, and trust is relational; trust in institutions is therefore even more complex – a debate we can expect to become even more intense when children's vaccines are authorized. If the pandemic is subsiding when children's vaccinations begin, then there is likely to be huge debate about whether they are necessary – although it is not uncommon to vaccinate children not only for their own sake, but also to protect adult populations for whom relatively harmless childhood illnesses can be lifethreatening. This is a complex issue and is bound to cause some difficulties in the future.

In all of these trust dynamics, physicians are critically important players: trust in government , institutions and systems are all less important if there is trust in physicians.

One tragedy of COVID-19 in Israel has been the shift of discussion from a professional dialogue to a political one. A shaky government coalition that has undergone four rounds of elections in as many years, with another coming, has faced difficulties enforcing social distancing and other measures, especially in uncooperative Arab and ultra-Orthodox minority communities that have evolved into COVID-19 epicentres. With the exception of lockdowns, which are hard and damaging, there are no measures or steps – opening and closing schools, for instance – the impacts of which can be confidently predicted. Weak leadership has repeatedly led to unorganized responses and rushed emergence from lockdowns, leading to more lockdowns later on. Despite public mistrust of government and an unplanned and hastily executed vaccine initiative, however, Israelis – who tend to have high levels of confidence in science and medicine – have cooperated with vaccination and results have been exemplary.

A national health insurance system in Israel mandates insurance for everyone. The government have coordinated the delivery of a great number of Pfizer vaccines. Access is not an issue: everyone has

access to health care by law, and vaccines are being delivered on the basis of same laws and frameworks. The third national wave of COVID-19 was less responsive to lockdowns, probably because it was dominated by the "British" variant now predominant in Europe. Indeed, the government tried to delay lockdown measures in the hope vaccines would do their work. However, it has taken more than a month for vaccines to slow down infection rates, and this is an important lesson for other countries.

Israel is now seeing a steady decrease in cases, severe cases and hospitalizations, and today 90% of the population aged over 16 is fully vaccinated (more than 50% of the total Israeli population) and the government has re-opened most of society. Israel has therefore become a de facto world laboratory for vaccine effectiveness and, to some degree, a test case for the legal and ethical questions around how to manage vaccinated and unvaccinated populations.

Uptake was slower among Orthodox and Arab populations, so leaders in those communities were approached and asked to help convince their constituents – a mission sadly made easier by COVID-19 deaths in those communities. As soon as the problem with vaccine acceptance was identified, vaccines were sent out directly in public events – through synagogues and mosques, for example – to promote outreach and encourage uptake. Another "pull" factor for vaccination was the confidence and reassurance engendered by seeing so many people, in Israel and around the world, receiving vaccinations.

The vaccination drive was underpinned by an intense media campaign addressing every potential question. Given their importance in the trust equation, written and video-recorded explanations were distributed to physicians at the start of the vaccine project so they could answer anticipated questions from nervous patients. Physicians are human beings too, subject to many of the same anxieties as their patients, and vaccine uptake among medical staff was encouraged on the assumption that people would look at medical professionals as examples. Getting people vaccinated in any organization — whether health care facilities, factories, industry or offices — is to a great extent a managerial issue: when good managers are in place and dedicated to their mission, many people will be vaccinated. But perhaps the most important and convincing effort in Israel was the example set by trusted opinion leaders, including the president, television presenters and opinion leaders, who got vaccinated themselves.

The moral message for vaccination speaks to a small portion of the population, but most make their decisions on the basis of what is good for them. A moral argument is important to lay ground for government activity, but not persuasive in itself. For most people, the effective message was that failure to vaccinate means polymerase chain reaction (PCR) tests every two days.

Thankfully, there have to date been no significant reports of adverse events. When such situations do occur, the first criterion is to be fully transparent about everything – what is known, what is unknown, and how it will be followed up. The second important thing is to establish a professional committee that follows adverse events to determine whether they are in fact vaccine-related, examining all such events and making transparent conclusions.

A number of lessons have emerged from these experiences. Firstly, it is clear that mandatory vaccines cannot be enforced without a massive backlash; but vaccination can be conditioned in many group settings – for example, by requiring it in schools or health care settings where others may be put at risk by exposure to unvaccinated people. The principle to sell is: it's not about you; it's about avoiding putting others at risk.

Secondly, the adoption and normalization of vaccine passports is an evolving social and legal process. Limiting access of unvaccinated people is an import tool for keeping environments safe and promoting

vaccines, and an especially important one for young people who may not view themselves as at risk from COVID-19. Israel's hotels, concerts and other public events are currently open only to people with vaccine passports. Many workplaces have made them a condition of returning to the office (with the alternative being PCR testing every two days). Such actions have helped to push the 20-50% of people lagging in uptake to feel that the inconvenience of waiting is not worth it, and to get vaccinated. On the regulatory side, the week before this meeting a court in Tel Aviv court ruled that school workers refusing vaccines and repeated PCR testing can be fired.

As with many aspects of health care, it is important to follow the public mood applying measures such as the passport. In Israel the public is keen to avoid another wave and shows good understanding of the need for vaccines, which is a very important foundation for the government and the judicial system when it becomes necessary to impose restrictions on individual autonomy.

At the global level, foremost among the many current vaccine-related issues is that of vaccine inequity. Rich countries currently have over 90% of the world's vaccine supplies, and those organizations involved in global allocation, such as the World Health Organization (WHO) and COVAX¹, are relatively weak and chaotic in many ways. Even under the best case scenarios, if current approaches continue then global immunity is unlikely before 2024. This is not just a moral issue but also one of the major geopolitical issues of our time: the problem of COVID-19 will not be solved until it is solved in every single country. Achieving this will require a significant increase in vaccine production and solutions for a number of issues around logistics, intellectual property and other areas. This calls for superpowered international leadership geared to getting manufacturers around the world working together to increase manufacturing and distribution with an emphasis on low-income countries – which are, after all, home to 4/5 of the world population.

Discussion

A number of further questions and themes were raised in discussion. Among these was the idea that with such a high prevalence of regulations and consequences for not vaccinating, it is difficult to get a real understanding of vaccine "acceptance" versus "obedience" in Israel. Time demarcation might be one way of parsing this – those vaccinated in the first month or two of the Israeli campaign could be considered those who accepted and were willing, versus those who came later in response to pressure, because they wanted to work or travel or something else. Under this metric the proportion of those who felt pushed is higher – but for them to feel pushed is a good thing from a public health point of view.

In light of the emergence of variants, continuing isolation protocols for visitors is of great importance – though this may not be being properly enforced in Israel at present. In theory, anyone coming with a certificate of immunity gets a serological test at the airport and must isolate for 24 hours pending the results. Israelis coming home from abroad take a PCR test in the airport and can then go out without isolation. If a variant is imported it is important for the carrier to be identified, and, even if the genetic sequence of the variant is not immediately known, at least contacts can be limited to avoid transmission. Preventing the importation and transmission of resistant variants is a central issue now, especially in countries with larger vaccinated populations.

¹ COVID-19 Vaccines Global Access, abbreviated as COVAX, is a global initiative aimed at equitable access to COVID-19 vaccines led by UNICEF, Gavi, the Vaccine Alliance, the World Health Organization, the Coalition for Epidemic Preparedness Innovations, and others.

Israel has been quick to get vaccines to its population not least because it has universal health care and a public health service for its citizens, as well as a deal with Pfizer for preferential access to vaccines (in return for anonymized data on vaccinated people). Development of a universal system and good procurement is important, but Israel is lucky in the sense that its population is small enough not to challenge worldwide procurement, and has therefore been able to obtain enough vaccines to cover half the population with relative ease. It is also historically a social democratic government that has emphasized health care for everyone and as a result developed health insurance law obliging everybody to be insured, which in turn provides structural underpinnings for a mass vaccination campaign;

Trust in the Age of COVID-19

Carolyn Paul, Global Managing Director and EMEA Health Chair at Edelman, UK

Ms Paul presented the results of the 2021 Edelman Trust Barometer, an online survey of over 33 000 respondents in 28 countries conducted by Edelman, the world's largest independent communications agency. The Survey has run annually for 21 years and this year interviewed 1150 respondents per country. It covers both the mass population and the "informed public," a demographic defined as those aged 25-64 who are college-educated, in the top 25% of household income per age group in each country, and who report significant engagement in public policy and business news.

Communications and trust are crucially important in this pandemic – but the survey reveals a bursting "trust bubble" for government, the media, non governmental organizations (NGOs) and business, all of which have lost trust among respondents. In May 2020, a mid-year Trust Barometer update in 11 countries showed that the pandemic had led to a dramatic reordering of institutional trust, which had surged in all institutions and primarily for government. In the following six months, however, all institutions saw dramatic decreases in trust and governments saw the biggest loss. Of the 11 markets in the May 2020 update, government trust had declined in nearly all, with the most significant trust losses in South Korea, the UK, China, Mexico and Canada.

Business is now the only trusted institution of the four institutions measured in the survey. Trust is becoming very local, with trust in employers – which had already been rising over time – now very high.

Unsurprisingly, a pandemic-dominated year has meant that trust in health care is under stress. When people are asked how much they trust companies in different sectors to do the right thing, in healthcare this year has seen both record highs *and* record low, depending on countries – again exemplifying the locality of trust. Trust in health care subsectors has also fallen globally. News cycles during the pandemic are fast, their content has been alarming, and public health policy has been politicized and polarized. In May 2020 the trust bubble burst for the health care sector generally, with falls in trust levels as great as 20 points in Mexico, 17 points in China and 10 points in the United Kingdom.

This declining trend is echoed across a number of the sub-sectors: trust in pharmaceutical companies has decreased in 15 of 27 countries; trust in biotech/life sciences has decreased in 20 of 27 countries; trust in hospitals has decreased in 17 of 27 countries; and trust in health insurance has decreased in 17 of 27 countries. Trust gaps between the informed public and the mass population also widened to a 10-point difference. In a year where health inequities have become increasingly obvious and their

effects more and more damaging, communicators must ensure they reach all populations and work to bridge divides between populations with different levels of access and affluence. As has been shown by the relative successes of different vaccine confidence campaigns around the globe, one size does not fit all in health communications.

The basic building blocks of society are in need of repair. When asked whether certain social problems have become more or less important since last year, "improving our healthcare system" was seen as 62 points more important; "addressing poverty" 53 points more important; and "improving our education system" also 53 points more important. But: when most needed, leadership is viewed as failing, and no class of social leaders — whether government officials, CEOs, journalists or religious leaders — is highly trusted to do the right thing. Once again, those who are trusted are those who are local and familiar, such as "people in my local community" (despite a seven-point decrease since last year) and "my employer's CEO." Scientists are still trusted, although again with a significant decrease since last year. The lack of trust in social leaders is so acute that globally many people actually suspect both government and business leaders of deliberately spreading lies and misinformation: 57% of people agree that government leaders are deliberately misleading people by saying things they know are false or grossly exaggerated, and 56% feel the same about business leaders. News organizations are also seen as biased, with nearly six in 10 people say that news organizations are more concerned with supporting an ideology or a political position than they are with informing people about what is happening. Another 61% believe that the media is not doing well at being objective and nonpartisan.

This uncertainty has spread to people's opinion of science. Globally, 54% of people believe that scientists design their research to ensure financial gain; 50% believe governments pressure scientists to support their policies (even if it means contradicting the data/research), and 48% believe scientists design research to support their own agendas. Similar to the trust split between the informed public and the mass population, developing markets are less trustful while developed markets are more trusting. Globally, people do trust public health experts, but that trust has decreased since May, and 46% of people agree it has been difficult to find reliable and trustworthy information about COVID-19.

The pandemic has been complicated and worsened by an "infodemic:" an overabundance of information that makes it hard for people to take the right decisions to protect their health. The sheer volume of information is daunting, and the fact that much of it is either mis- or disinformation makes the problem worse. Trust has been put to the test to an unprecedented extent this year, and some institutions and some countries have passed that test better than others.

Working closely with employers will be important in the fight against vaccine hesitancy. Trust in all information sources is at a record low. None of the sources of news mentioned in the survey – traditional media, search engines, owned media or social media – is trusted, and trust in all has declined significantly in the last year. In this media landscape, the most believed source of information is employer communications: "my employer communications" scored highest for believability at 61%, higher than government communications or named media reports. Employers are in a powerful position to solve problems by providing trustworthy information. This could be because of a trust and leadership vacuum: while people have high hopes and feel let down, business is perceived to have made fewer mistakes than other parties, responding generally well to the challenges of the pandemic.

With this in mind it will be particularly important in the future to ensure that business leaders have the right information, and that they share it with their employees. Given that one principle of crisis communications is consistency of messaging, it will be necessary to ensure that employers are able to communicate consistently without contradicting governments and health authorities — though of course they will be able to adapt language and the channels and people used to deliver it. Different

parts of the population need to get credible information from different places and people and in different ways; how it is framed and couched must vary.

One major and widespread problem for health and vaccine campaigns is the fact that the vast majority of people do not know how to manage their information diet. This year the Trust Barometer measured how well respondents practice good information hygiene – i.e. whether they engage with multiple news sources, avoid information echo chambers, verify the accuracy of the information they consume, and/or vet content before sharing it. Results are not positive: only 26% of the total population surveyed practices good information hygiene as defined as scoring well on three of the four dimensions above. Of the 57% who report sharing or forwarding news items they find interesting, only 29% practice good information hygiene. It follows that a significant amount of unvetted information is both consumed and disseminated.

Vaccine hesitancy will not be overcome if we do not address the infodemic and the lack of information hygiene. Trust Barometer data shows a clear link between willingness to vaccinate and good information hygiene: people who practice good information hygiene are 11 points more likely to say that they are willing to vaccinate within the next year than those with poor information hygiene, among whom only 59% say they will vaccinate. At country level, 16 countries have double-digit gaps in willingness to vaccinate between those with good vs. poor information hygiene, most acutely in the UK, Spain, the US, France and India – suggesting a significant threat to the economic recovery of some of the world's largest economies.

Transparency and education are essential to building trust in the vaccine. The public is looking for straightforward information about vaccines as a foundation of trust – nearly two thirds agree they need to understand the science and development process before they will trust that it is safe. A great deal of media attention has been paid to progress on the vaccine, but trust in media is low; this, coupled with a desire to increase science literacy, opens the door for healthcare companies to shed light on the vaccine process with consumer-friendly language and infographics, personal stories (e.g. from researchers, healthcare workers and vaccine recipients), and a direct approach to debunking misinformation.

This is especially important because people are unsure whether they can trust the COVID-19 vaccine. Worryingly, this is even true for health care workers. In November 2020, when this data was collected, only 33% of those employed in the healthcare sector said they were ready to be vaccinated as soon as possible. A total of 62% said they were prepared to be vaccinated within the year. Shockingly, health care employees were less willing to get vaccinated when compared to industries like telecommunications and even fashion. Globally, there is an urgent need to address vaccine hesitancy among health care workers.

Discussion

Combating hesitancy in health care workers is an important means of increasing uptake in the general population: in a communications crisis you want as many ambassadors and advocates as you can possibly get. The likely widespread assumption that health care workers would be among the first to want the vaccine makes it especially important, in terms of the public view of the situation, to overcome hesitancy among them. Like physicians, they are human, no different to the rest of the public, and their sensitivities should be respected and countered like everybody else's.

We cannot expect_health care personnel to overcome vaccine hesitancy alone. A concerted effort across society, encompassing business and other parts of the community, is essential. For example,

seeing from the Trust Barometer the high level of trust in "My CEO" suggests a strong role for employers.

The implications of vaccine passports for employers' vaccine mandates are interesting, and may be part of the next round of data. As is evident in Israel, the well-placed push towards vaccination could be crucial, and employers have particular leverage.

Just as we cannot expect health care workers to be the only builders of trust in vaccines, to build public confidence and help combat the virus, global leaders across governments and science must partner to ensure current, accurate information is readily available. Across countries, the Trust Barometer showed record highs and record lows in trust in health care, in many cases mirroring effective as well as ineffective local measures taken to control the pandemic. This illustrates that trust is based on local experiences – people need to feel confident in the decisions of their leaders. While politicians and scientists will need to work together on open and transparent information, it is also increasingly important to present fact in a non-partisan manner. The politicisation of science has likely only deepened the divide between trusters and nontrusters.

Messages have changed over the course of the pandemic because evidence has changed. There have been many mistakes and lessons learned, with predictable impacts on trust. Scientists and medical people are generally comfortable with caveats about information when they talk to each other, but at the start of the pandemic – perhaps because people were urgently seeking certainty – these caveats were absent. Once it becomes necessary to retract or change previous certainties, it takes a long time to build back trust, and the only way to do so is to be open about the process and work to increase health literacy so that as many people as possible are equipped to understand scientific and medical information.

COVID-19 vaccination in the Philippines: a year on in the pandemic and the imperatives of solidarity and equity

Nina Castillo Carandang, Health Social Scientist and Professor, College of Medicine, University of the Philippines

Dr Castillo Carandang began by quoting her mother, National Scientist and sociologist Dr Gelia Tagumpay-Castillo: "when the best science and scientists are devoted to the problems of those who have less in life, that is equity and ethics at its best... if science is to serve a human purpose, what better purpose is there?"

When discussing the pandemic, as in other things, context matters, and the Philippines is a complicated context in which to carry out health intervention. It has a hugely varied population of 110 million people – the 13th largest in the world – spread over 7641 islands. It is prone to typhoons and earthquakes. Life expectancy is 70.32 years, the median age is 24.1 and the population is 47% urban. Over 10 million Filipinos live overseas. The Philippines imposed harsh lockdown restrictions but still failed to control the spread of the virus, and the economy fell 14% compared to its pre-COVID-19 level in the 2nd quarter of 2020 and remained 9% down by the end of the year, making the country one of the pandemic's worst economic performers.

Coverage of routine child immunisation has dropped severely between 2016 and 20, partly due to lockdown issues but partly for other reasons. Vaccine uptake generally is falling. Childhood immunization rates used to be around rates of 90-95%, with queues for vaccines a common sight; this is no longer the case. Vaccines need to be made equitable and accessible, and vaccination should be made into a pleasant experience so that more people are encouraged to seek it out.

A series of focus group discussions on the acceptability of COVID-19 vaccines among key stakeholders, run by the Health Technology Assessment Council & Health Technology Assessment Unit of the Philippines Department of Health in February 2021, found that people's main concerns around the vaccine were to do with safety and effectiveness. There is an obvious need for clear communication of information on the benefits and risks of current COVID-19 vaccines from trusted health experts. All stakeholder groups generally preferred vaccines with higher efficacy (i.e. >90%), though many participants expressed willingness to accept vaccines with lower efficacy (50-70%) rather than have no protection at all, especially when considering the demands of factors such as logistical requirements, cost-efficiency and equitable access – especially to poor, far-flung and disadvantaged areas. Different groups emphasised different characteristics of the ideal vaccine, with patient groups, crucially, desiring a vaccine recommended by their physician.

When seeking information on vaccines, patient groups tended mostly towards the Department of Health as a trusted information source (32%), followed by television (18%), medical society websites, webinars, radio, the internet, and WHO (9% each), and other health groups (5%). The overall majority of the participants relied on television news for information on COVID-19 vaccines. Other sources of information cited were radio programmes and social media, with Facebook the top platform used to check updates on vaccines. Some participants visit the Facebook pages of the Department of Health and news agencies and some also receive information from their religious congregations. In a survey in February-March 2021, only 48.2% of unvaccinated people reported the intention to get a vaccine when it becomes available.

At the time of the presentation 1759 vaccination sites were operational across 17 regions of the Philippines, with 98% of all available doses (1 105 500 out of a total 1 125 600) distributed to the vaccination sites. 62% (508 332) of allocated first doses had been administered. In the first quarter of

2021 the Philippines had received vaccinations from China (both donated and purchased) and from the COVAX facility. Total vaccine supply by the end of March 2021 was 3 504 800 total doses.

Dr Castillo Carandang (paraphrasing the late Dr. Jonathan M. Mann's 1987 statement re: the HIV-AIDS epidemic in the 1980s) described the pandemic as three distinct yet intertwined epidemics: the SARS-CoV-2 viral infection itself; the epidemic of the COVID-19 disease; and the social, cultural, economic and political reactions to COVID-19. The social impacts of the pandemic in low- and middle-income countries (as described by Brigitte Rohwerder in 2020) generally are powerful and varied: the poor and near-poor are put at greater risk of extreme poverty; they are likely to be without social protection; women, girls and marginalized groups are worst affected; and a lack of data exacerbates exclusion. With all these factors in mind responses to the pandemic should seek to do a number of things: analyse who is most marginalized and/or at risk and prioritize protection of their lives and livelihoods; collect, analyse and monitor disaggregated data; ensure responses are based on human rights and inclusive of those most affected, ensuring their representation in decision-making, governance and monitoring of the response; combat stigmatization and marginalization in the response; expand social protection programmes and include previously excluded groups such as informal workers; maintain essential food, violence prevention and health services (including sexual and reproductive health services) and provide support to cover financial obligations for things like basic utilities and rent; and promote flexible work arrangements, provision of care and sharing of unpaid care and domestic work in order to reduce the burden on women of unpaid care. In the long term, universal social protection and protection of health, economic and social rights are critical in mitigating the impacts of global pandemics.

Policies for COVID-19 should be based on transdisciplinary, evidence-based science and good public health. Understanding sociocultural and behavioural realities, working together and communicating with each other are integral to a holistic response to the challenges of the pandemic. The so-called "new normal" is not normal; we need to pivot all our responses – our priorities, policies, interventions, actions and behaviours – so that we can transition to what will hopefully be a "better everyday" in a just and humane society.

Health is a fundamental human right, but people and groups who experience health inequities lack the political, social and economic power they need to claim that right. Interventions like vaccination programmes need to be designed and implemented with equity in mind, so that they are effective and sustainable. Access to the vaccine alone is insufficient: systemic changes, such as policy reform and changes in economic or social structures, are imperative in order to empower marginalized groups and ensure that no-one is left behind as the world emerges from this pandemic.

COVID-19 vaccine introduction scenario in Argentina: challenges and opportunities

Romina Libster, paediatric investigator - vaccine & respiratory viruses research, Fundación INFANT, Argentina

"The impact of vaccination on the health of the world's people is hard to exaggerate. With the exception of safe water, no other modality has had such a major effect on mortality reduction and population growth."

Susan and Stanley Plotkin

Science and vaccine experts all over the world have mainly focussed on four important challenges in the last ten years: develop better vaccines; safer vaccines, better and safer vaccines faster; and ensuring that those vaccines are finally administered. The first two have been done, and the third – getting them faster – is something that COVID-19 has shown to be possible if we generate the necessary resources and alliances to achieving it. Now, the question of ensuring that people actually get the vaccines is the main challenge. In the pandemic context, a number of good COVID-19 vaccines have been developed in under a year, and the most pressing challenges now are access, availability and uptake of those vaccines.

Access and availability entail national level decisions to procure and administer a vaccine; planning and implementation of immunization programmes; a manufacturing process that addresses issues of vaccine supply and logistics; and delivery to patients of those vaccines, including in low- and middle-income countries, in an equitable manner.

This presentation focussed on Argentina, which can be taken as a "reflection of other South American countries." From the beginning of the pandemic Argentina has tried to get the attention of vaccine manufacturers and acquire what doses it could. When vaccines initiated clinical trials, Argentinean authorities began to plan a vaccination program that had to cover a very large country encompassing a range of different regions differing hugely in character. A strategic programme for distribution in all states was planned, focussing first — as in every country — on high-risk groups as health care workers and elderly people; then, if available, on others. The first available vaccine in Argentina was the Russian Sputnik vaccine, then Covishield and Sinopharm followed. Others have not yet arrived, though the authorities continue to try to procure them from approved manufacturers. Procurement has been the major challenge: vaccines are distributed unequally and hard to obtain as other countries fight for what they can get. Second doses of Sinopharm and Covishield are now beginning to be administered in Argentina, mostly to health care workers, then to elderly people and later to those with comorbidities.

Theory and practice often differ. Numbers are low, especially in proportion to the overall population of the country (and this has happened in many Latin American countries). A number of different factors have impacted administration in Argentina. The country covers a very large federal territory with a great deal of inequity in infrastructure and logistical capacity. Not all states have the capacity to implement the vaccination programme, so early focus has been on building the capability to get doses out to the regions. At present, every time the online vaccine subscription system is opened, millions of citizens enter to sign up: the main problem is not currently one of hesitancy, but of capacity and logistics. A lot of people want the vaccine but cannot get it.

That said, there is a degree of hesitancy that cannot be overlooked. In a very interesting project conducted in October 2020 by an NGO assessing vaccine confidence index in Argentina (ICAV- Bunge & Born - data not published yet) seventy-two per cent of people in would get the vaccine if it would have been available, but 28% would rather wait. This is interesting because it bucks longstanding

trends; Latin America has always been very positive about vaccines. When you analyse that 28% of, most of the people rather wait as they feel that there is still a lot of evaluation still to be done. This finding is important to be taken by the communicators and bring transparency and confidence to the population. The pandemic is starting to teach us many lessons, particularly around how to communicate and advocate. Increasing vaccine uptake requires understanding the main fears and doubts. Enhance communication based on data, based on research on attitudes and behaviours; getting scientists out of their comfort zones and making them learn and use communication skills; and implementing immunization programmes based on ethical principles.

The focal point of communications must be evidence and expertise, delivered with honesty, transparency and care to avoid creating feelings of fear, which can have a significant impact on the dynamics of the pandemic. The scientific community has to stand up and communicate —not just in the media and on social networks, but also in work environments, personal lives and elsewhere. Every informed person, in every circle in which they move, must be a communicator and a distributor of evidence. It may be easy for scientists to understand scientific papers and information from webinars, but now they need to translate it for others who are waiting for those they trust to say something. Providing evidence, being transparent, showing the importance of vaccination and being a communicator are important responsibilities.

Panel discussion

The webinar ended with an open panel discussion that covered a number of themes.

Regaining people's trust in vaccine programmes can be challenging and time consuming. When mistakes are made, somebody has to say sorry and be brave enough to admit mistakes. The only way to regain trust is 100% openness. Public health crises can be managed like any communications or media crisis: the two most important elements are a policy of total transparency and having a public-facing figure for the crisis who represents the industry and is reliable and responsible. Once these two things are in place, in times of crisis the public will seek out that figure. Regretfully, governments do not tend to produce such figures anymore, so they must come from elsewhere.

Good practices for strengthening trust in vaccination include focussing on the confluence between ethics and competence, where trust is built most strongly. For example, the most trusted businesses are those that combine ethical approaches with extreme competence in their fields. Dr Castillo Carandang's experiences in the Philippines speak to the effectiveness of providing information repeatedly, in relatively intimate sessions. She has done dozens of "town hall" meetings organised by the ministry of health for doctors, nurses, pharmacists, midwives, teachers, bishops and others at which simple explanations around vaccination have tended to increase audiences' willingness to vaccinate from as low as 30% to about 80% in the course of a single meeting. People ask personally relevant questions about, for example, whether they can receive a vaccine if they are pregnant, or have diabetes, and in this context they can have their concerns addressed effectively. In Israel, where freedom of speech is important, extra-cautious steps were taken when it came to the vaccine: a "war room" was established in the Ministry of Health to monitor social media and online channels and proactively block sources of mis- and disinformation. This was accompanied by other measures such as intensive use of television channels to work counter bad information, claim by claim, and a high profile case of stripping the licence to practice from one prominent, and extreme, physician who opposed vaccination.

Disseminating information on adverse events without spreading fear is a challenge. There are two sources of data: data from clinical trials with tens of thousands of participants, which has been well distributed; and data from events in public campaigns. Arguably, there is no need to provide people

with constant notifications of adverse events; it is necessary instead to be responsive to the public, to sense what they want, project ahead what might cause problems, and be prepared with answers to questions. People need to know what to expect, but do not benefit from constant details and specifics: it is important to be preventive and to focus on positives rather than negatives. All vaccines can have some side effects, like all drugs; but the benefits greatly outweigh possible complications.

Science is not designed for the current media age. It is not a short form art. Instead, it prioritizes and values extensive evidence and context and nuance that translates poorly to social media. A list of adverse events with appropriate contextual information is not what Twitter was designed for. Online information prioritizes sensational headlines, and the search for clicks means the more controversial the better. In this context, options are limited, and not much can be done other than getting the right information out as much as possible.

As children's vaccination begins, different patterns of impact and hesitancy are likely. Parents' attitudes are mainly driven by safety: they want to be sure, especially if the pandemic is subsiding, that their children are safely vaccinated. Trials ongoing now with young children will only solve part of this problem. People will tend to be much more cautious with children; coverage will come eventually, but it will take a long time. It is possible to apply social measures to children, such as requiring vaccines or repeated PCR tests for access to education, nurseries and childcare, child support and public spaces such as hotels; but issuing vaccine passports for children is another question and would be likely to meet resistance. PCR testing can be a useful "nudge" in that it is not very pleasant; the fact that children do not like it could be a decent motivator for vaccination.

Issues of global vaccine equity can only be addressed by partnerships and alliances to increase capacity. We are starting to see some progress in this direction, but for the most part levels of vaccine nationalism and competition have been disappointing. There is a deficit of responsible leadership on the world stage. A lot can be achieved through international collaboration between leaders — for example, collaboration between the European Union and the US to prepare a plan for low- and middle-income countries would be a huge boost to preparedness for the next wave, and beyond that the next pandemic. There are a lot of lessons to be learnt, but if they are not addressed immediately, while the pandemic is ongoing, they will be forgotten.

Managing the politics that impact adherence to preventive and protective measures is a major problem in many contexts around the world. Political polarisation can affect opinions in different ways. Scientists and health professionals have to work to bring together governments, professionals and scientific and political communities. The science community cannot avoid taking part: it has a duty to protect the people and to try to ensure that whoever is in government is exposed to the evidence that will help achieve that objective. In some countries, unfortunately, there are large gaps between scientists and government; politicians prioritize pleasing the public, while science favours caution – for example, when lifting lockdowns. Governments cannot, however – and should not – be removed from our decision making processes. In many countries they are the ones who must be subjected to public judgement later. While scientists must clearly state their beliefs and red lines, they should not aspire to replace the role of politicians in making decisions about what measures to take.

Some people are afraid to take one particular vaccine over another, and for those people it is important to emphasize the need for as many vaccines as possible: the

pandemic will not end without them. If a vaccine has shown efficacy and safety, with peer reviewed data presented to the authorities with all the right processes and quality assurances, it should be taken. The pandemic has made everyday science a reality television show. Every detail is constantly public every minute of every day. The process of vaccine development has been happening for decades, but never exposed to this degree.