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Enhancing public trust in COVID-19 vaccination

This paper has been prepared jointly by the Governance Indicators and Performance Evaluation Division in the OECD Public Governance Directorate (GOV) and the Health Division in the OECD Directorate for Employment, Labour and Social Affairs (ELS).

The paper is intended to be published as a policy brief in the OECD COVID-19 Hub and will be available in English and French.

Delegates to the Public Governance Committee and Delegates to the Health Committee are invited to send COMMENTS via written procedure by the deadline of 15 April 2021.

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Abstract

While developing vaccines against COVID-19 in under a year is an extraordinary achievement, successfully vaccinating the global population presents several challenges, from production to distribution, deployment, and importantly, acceptance. Trust, not only in the vaccines, but also in the ability of governments to deliver them effectively, is critical. This brief addresses the main drivers of such trust – promoting faith in the science behind vaccine development and testing; creating confidence in their effectiveness and safety; and building trust in governments' ability to procure sufficient quantities and distribute them efficiently and equitably. While only a small minority of the population holds strong anti-vaccination views, hesitancy about COVID-19 vaccination is evident in many countries. Recognising that a vaccination campaign of the size and speed needed is unprecedented, government actions to garner trust will be essential to the success of vaccination efforts, as well as to the emergence of more resilient societies after the crisis.

Key Messages

While the development of COVID-19 vaccines has been an extraordinary success, vaccinating most of the global population is an enormous challenge, one for which gaining—and maintaining—**public trust in COVID-19 vaccines and vaccination will be as essential as the effectiveness of the vaccines themselves**.

Trust in vaccination, and in the ability of governments to successfully deliver a vaccination program, is critically dependent on:

- the extent to which the Government can instil public **confidence in the effectiveness and safety of the vaccines**;

- the **competence and reliability of the institutions that deliver them**;

- the **principles and processes that guide government decisions and actions** in vaccine procurement, distribution, prioritisation, and administration; and

- the effectiveness of the **public engagement and communications** that accompany these.

Given the speed at which COVID-19 vaccine development has taken place it is important for governments to emphasise that **no developmental or regulatory corners were cut in the process**, as:

- development was facilitated by extensive prior research, unprecedented levels of international collaboration among researchers, and massive public investment in R&D and manufacturing capacity; and

- approval processes were accelerated, in part through procedures that allow the acceptance of more preliminary evidence in circumstances of public emergency; and with COVID-19 products accorded the highest priority by regulators.

Successful vaccination campaigns also require **extensive and well-managed community engagement**. A thorough understanding is needed of different populations' specific concerns, prior experiences, religious and/or political affiliations, and socioeconomic status. It is also important to ensure that government actions are **open to public scrutiny**, and that **public institutions engage with the population**, by:

- Proactively **releasing timely information** on vaccination strategies, modalities and accomplishments in disaggregated, user-friendly and open source formats;

- **Enhancing transparent and coherent public communication** to fight misinformation and the "infodemic"; and

- **Engaging the public in the design of vaccination strategies**.

Finally, fairness is a hallmark of human behaviour that underlies social cohesion and trust. National governments must therefore **manage public expectations** and explain why it is fair that particular population groups within a country are prioritised for vaccination.

Introduction

> *"The most important ingredient in all vaccines is trust."*
>
> Barry Bloom, Harvard T.H. Chan School of Public Health

There is broad agreement within the global scientific community that the most effective way to defeat the COVID-19 pandemic is through the mass vaccination of populations around the world. The development of vaccines for COVID-19 has been a powerful demonstration of how substantial public funding, intense focus, and unprecedented levels of scientific collaboration can help spur innovation to address global public needs in a very short time. However, the approval and rollout of vaccines does not herald the immediate end of the health crisis, as attaining herd immunity will require the vaccination of a very substantial proportion of population, and is therefore a major challenge (OECD, 2020). To succeed in the global effort to immunise billions of people as rapidly as possible, countries need to give priority to addressing issues of trust – trust both in vaccines, and in the institutions responsible for the vaccination endeavour. They need to promote confidence among the public in the effectiveness and safety of the vaccines, as well as in the capacity of governments to manage the logistical challenges competently.

Despite an initial "rally around the flag" effect seen early in the pandemic, many countries are observing increasing levels of distrust in government capacity to handle the crisis and implement coherent policies (OECD Government at a Glance 2021, forthcoming). This has resulted in declining compliance with public health-related rules, and increasing scepticism about long-term economic recovery. More broadly, the pandemic has triggered widespread disinformation that has undermined both understanding and acceptance of science and public policy (de Figueredo et al., 2020[1]), and this extends to the issue of vaccine acceptance. Despite recognition of COVID-19 as a critical issue to people all around the globe, many remain unwilling to be vaccinated, or are choosing to delay vaccination. A survey of eleven OECD countries in December 2020 found that on average, only 66% of the population would accept vaccination (IPSOS, 2020[2]). Similarly, recent data from seven OECD countries showed that a quarter of the population in France, Germany and the United States may refuse COVID-19 vaccination, and an even higher proportion among younger population cohorts. More than 50% of French 25- to 34-year-olds, and one third of Dutch 25- to 34-year-olds, said they would definitely or probably not get vaccinated (Kantar, 2021[3])

Not surprisingly, trust in the safety of vaccines has also been seriously tested by recent reports of rare adverse events associated with, but with as yet no clearly established causal link, to the AstraZeneca vaccine. Both the potential safety signal, and the precautionary suspension of the use of the vaccine in a dozen European countries prompted by it, are likely to have undermined public confidence. That said, there is also evidence to suggest that as more people are vaccinated, more will be inclined to accept vaccination. While this may to some degree indicate a gradual dissipation of initial fears about the safety of novel vaccines (recent events notwithstanding), it may also reflect that being vaccinated gradually becomes normative, and is increasingly accepted as the path out of restriction and confinement (Bish et al., 2011[4]).

Trust in vaccines must also be complemented by trust in the institutions responsible for vaccination. In general, trust in institutions is critical for the effective functioning of society and acceptance of public policy, and particularly so during a crisis. Trust is defined as a person's belief that another person or institution will act consistently with their expectations of positive behaviour (OECD, 2017[5]), and institutional trust is recognised as a key measure of government performance (OECD, 2019[6]). The OECD has developed a Trust Framework as a guide for governments in developing specific policy actions to strengthen public

trust, built around the five dimensions of government mandates that research shows largely explain people's trust (see Box 1).

Overall, the success of vaccination campaigns will largely be influenced by the extent to which people trust the effectiveness and safety of the vaccines, the competence and reliability of the institutions that deliver them, and the principles that guide government decisions and actions. Drawing on the OECD Trust Framework, this paper identifies some policy priorities for countries to strengthen population trust as they rollout COVID-19 vaccines, and provides examples of good practices that countries have implemented and can enhance people's confidence in vaccination campaigns. Section 2 discusses the relevance of government competence in building trust in vaccines. Sections 3 to 5 discuss integrity, openness and fairness in this context.

Box 1. The OECD Trust Framework

The OECD Trust framework identifies five main policy dimensions that drive people's trust in government institutions: responsiveness, reliability, integrity, openness and fairness. These five dimensions correspond to government mandates such as providing public services, protect citizens, use power and resources ethically, etc. The empirical relevance of this framework has been tested in eight OECD countries and evidence shows that both government competence and values are strong predictors of public trust (Murtin et al., 2018[7]); (OECD/KDI, 2018[8]) (OECD, 2021).

Trust Component	Government Mandate	Concern affecting trust	Policy Dimension
Competence: ability of governments to deliver to citizens the services they need, at the standard they expect	Provide public services	Access to public services, regardless of socioeconomic status; Quality and timeliness of public services; Respect for public service provision, including responsiveness to citizens' feedback;	Responsiveness
	Anticipate change, protect citizens	Anticipation and adequate assessment of evolving citizen's needs and challenges; Consistent and predicable behaviour; Effective management of social, economic and political uncertainty;	Reliability
Values The drivers and principles that inform and guide government action	Use power and public resources ethically	High standards of behaviour; Commitment against corruption; Accountability;	Integrity
	Inform, consult and listen to citizens	Ability to know and understand what government is doing; Engagement opportunities that lead to tangible results;	Openness
	Improve socio economic conditions for all	Pursuit of socio economic progress for society at large; Consistent treatment of citizens and businesses (vs. fear of capture);	Fairness

Source: (OECD, 2017[5])

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2. Competence

2.1 Provision of quality goods and services is a key indicator of government competence

An important indicator of government competence is responsiveness to population needs, as demonstrated by the provision of high quality goods and services required by the population. The development of several effective COVID-19 vaccines in less than a year is an impressive demonstration of the ability of public authorities to stimulate scientific R&D efforts in the direction of the greater good, and an exemplar of the benefits of cooperation between public and private stakeholders.

However, in order to promote population trust in these products, it is essential that governments demonstrate that no quality or safety standards were compromised in the speedy development and approval processes. As with other medical goods, COVID-19 vaccines have been, and are continuing to be developed, evaluated and approved in accordance with existing regulatory guidelines and legal requirements (EMA, 2020[9]). They are initially tested in the laboratory (in pre-clinical studies), and then in clinical trials involving human volunteers[1]. These trials are intended to confirm how the vaccines work and importantly, elucidate their safety and protective efficacy. In more usual circumstances, developing new vaccines can be a lengthy process, with the different phases of development undertaken sequentially. In the case of COVID-19, a number of factors contributed to significant acceleration of both the development of vaccines, and of the chances of successful candidates. Approval processes were also accelerated, in part through the use of emergency procedures that enable the acceptance of more preliminary evidence in circumstances of significant unmet need or public emergency (see Box 2).

Box 2. How it was possible to develop and approve COVID-19 vaccines so rapidly

A number of factors contributed to the speed with which successful COVID-19 vaccine candidates were able to be developed and tested. These include:

- SARS-CoV-2 is genetically close to various other coronaviruses that have been the subject of previous investigation, so vaccine research and development did not start from a zero base;

- Development was facilitated by extensive knowledge gained with previous vaccines, coupled with unprecedented levels of engagement and collaboration among researchers internationally;

- A large number of vaccine candidates have been, and are continuing to be developed and tested in parallel, using a variety of different platforms, increasing the chances that one or more would prove successful;

- Some vaccine candidates (and two of the products already authorised) rely on a novel messenger ribonucleic acid (mRNA) platform, which allows them be developed, modified and manufactured more rapidly than vaccines using traditional platforms;

- Governments invested heavily both in R&D and in manufacturing capacity, the latter to enable the production of large quantities of vaccine before the results of the phase III trials were available, and in many cases potentially absorbing the full financial risks of R&D failure;

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[1] Pre-registration clinical trials of medicines and vaccines usually occur in 3 sequential phases: phase I trials usually assess safety and tolerability in a small group of less than 100 adults; phase II trials test safety, dosage and method of delivery in a larger group of several hundred people; and, phase III trials aim to establish safety and efficacy usually in a large group of several hundred to thousands of people.

ENHANCING PUBLIC TRUST IN COVID-19 VACCINATION

- The scale and severity of COVID-19 underscored the urgency of vaccine development. This drove intensive investment and faster development processes, via for example running trials in parallel that in other circumstances would be conducted sequentially and by combining trial phases I and II, to assess safety and immune responses;
- The combination of the high incidence of COVID-19 in many locations and rapid clinical trial recruitment accelerated the demonstration of efficacy in preventing symptomatic infection.

Besides the use of emergency procedures, other factors that helped to accelerate the process of approval included:

- National regulatory agencies engaging with COVID-19 vaccine developers, and supporting the research and development effort indirectly, in some cases by providing early scientific advice on the most appropriate study designs for generating robust data;
- Regulatory review being expedited via a process known as "rolling review", whereby developers submit tranches of data incrementally as they become available rather than waiting to assemble a compete dossier before submission;
- COVID-19 products being accorded the highest priority by regulators, with additional resources applied to enable rapid, intensive review of dossiers.

Ongoing surveillance for the potential emergence of adverse effects is also essential to support population trust, using well-developed pharmacovigilance systems to track problems or adverse reactions not detected in the clinical trials. With the rollout of COVID-19 vaccines, stringent regulatory authorities (e.g. FDA, EMA)[2] are expanding their vaccine monitoring procedures and publishing regular safety updates[3], As the recent controversies about the safety of the AstraZeneca vaccine highlight, authorities face a number of complex challenges in promoting and maintaining trust in the safety and effectiveness of vaccines as they are rolled out, particularly in a context of health emergencies (see Box 3).

However, it is important to ensure that communications regarding potential adverse reactions are handled with care, in order to avoid reinforcing hesitant people's cognitive biases. In particular, confirmation bias (i.e. the tendency to select information that reinforces people's beliefs) and negativity bias (i.e. the tendency of negative feelings and information to have a greater effect on people than positive or neutral ones) should be carefully addressed. For example, a study of parents' attitudes while searching information online about vaccines showed that people tend to select belief-consistent information and tend to rate this information as more credible, useful and convincing (Meppelinka et al., 2019[10]).

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[2] The concept of a stringent regulatory authority was developed by the WHO Secretariat and the Global Fund to Fight AIDS, Tuberculosis and Malaria to guide medicine procurement decisions, and is now widely recognised by the international regulatory and procurement community as a regulatory authority that is:

- a member of the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH), being the European Commission, the US Food and Drug Administration and the Ministry of Health, Labour and Welfare of Japan also represented by the Pharmaceuticals and Medical Devices Agency; or
- an ICH observer, being the European Free Trade Association, as represented by Swissmedic, and Health Canada; or
- a regulatory authority associated with an ICH member through a legally-binding, mutual recognition agreement, including Australia, Iceland, Liechtenstein and Norway."

See: WHO Expert Committee on Specifications for Pharmaceutical Preparations Fifty-first report (Technical Report Series, No. 1003, 2017)

[3] https://www.ema.europa.eu/en/news/first-covid-19-vaccine-safety-update-published

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Box0 3. Maintaining trust when adverse events occur: the AstraZeneca case.

In early March 2021 a few cases of serious thromboembolic events, some fatal, emerged after vaccination with the AstraZeneca vaccine. The detection of these adverse events pointed to the strength of pharmacovigilance mechanisms in rapidly identifying a potential safety signal, and prompted precautionary suspension of the use of the vaccine by 12 EU countries and Thailand pending regulatory review to confirm or exclude the existence of a causal link and if necessary, re-evaluate the benefit-risk profile. After a thorough investigation, on 18 March the EMA recommended the resumption of vaccination with AstraZeneca vaccine, as in its view a causal link with these adverse events had not been established, though the Danish regulatory agency is yet to reach its determination..

While the temporary suspension may be seen as an application of the precautionary principle, it has understandably prompted debate about the wisdom of such actions in the context of the massive risks of slowing down vaccination during the pandemic, as well as the possible effects on overall acceptance of COVID-19 vaccination. Similar precautionary measures by regulators are not uncommon in the presence of significant potential safety signals, but are not usually undertaken in circumstances of such widespread public attention, and within populations already partly sceptical about the benefits and risks of the vaccine. Regulators may have taken the view that temporarily suspending the use of the vaccine would provide reassurance to the population that all potential safety issues were being thoroughly investigated. By contrast, it has had the effect of confirming doubts about the vaccine's safety among the public so that even when regulators confirm that the risk-benefit calculation remains overwhelmingly in favour of the continued use of the vaccine, the impact on public opinion has been very harmful, arguably far more so than for any other vaccination programme. A recent study looking at the impact of the initial decision of the Danish authorities and of subsequent decisions of other countries, found that the Danish decision to suspend use of the vaccine may have had cross-national ripple effects on broader acceptance of vaccines against COVID-19 (Petersen et al., 2021[10]), and may also have exacerbated pre-existing doubts surrounding the AstraZeneca product that have led significant quantities to remain unused in France and Germany.

Regardless of the eventual outcome of regulatory assessments, this points to the need for exceptional care in the messaging around these issues, including about how the balance between risks and benefits of vaccination evolves in the context of a pandemic. It will be important to try to develop greater public understanding of both the nature and magnitude of the risks and benefits of this and other COVID-19 vaccines, and to carefully contextualise the risks of rare adverse events relative to the much greater risks posed by COVID-19 itself.

Sources:

https://www.dw.com/en/covid-astrazeneca-vaccine-remains-unpopular-in-germany/a-56630827

https://www.euractiv.com/section/coronavirus/news/unused-stocks-of-astrazeneca-vaccine-pile-up-in-france-germany/

https://florianstigler.medium.com/rare-vaccination-side-effects-should-we-care-da91e3953ad1

https://www.ema.europa.eu/en/news/covid-19-vaccine-astrazeneca-benefits-still-outweigh-risks-despite-possible-link-rare-blood-clots. The EMA had received reports of 18 central venous sinus thrombosis after approximately 20 million AstraZeneca vaccinations by 16 March

2.2 Effective and inclusive vaccine policies foster trust in government competence

While it is clear that the development of COVID-19 vaccines has been a remarkable success story, much still needs to be done to engender trust in the vaccination programmes that deliver them. In addition to ensuring the effectiveness of the vaccine and the integrity of the development, evaluation and monitoring processes, governments must also demonstrate their capacity to procure vaccine supplies, and to design and deliver effective and inclusive vaccination campaigns.

To ensure timely delivery, governments need to establish policies and infrastructure for distributing, storing and delivering vaccines across their jurisdictions. A recent report to the European Economic Area indicated that most countries intended to utilise existing vaccination infrastructure, while only a few had plans to procure additional equipment to ensure the correct storage of vaccines (ECDC, 2020[11]). However, in many jurisdictions current infrastructure and supplies may not be adequate to ensure a swift vaccination campaign, particularly when considering the particular transport and storage requirements of certain

vaccines (eg. very strict cold-chain maintenance). In fact, there is already evidence that some countries are struggling to maintain their planned timetables.

Coordination, involvement in decision-making, alignment of actions, and transfer of resources across levels of government together contribute to effective and inclusive vaccine policy. For example, Spain designed a national vaccination strategy steered by the Inter-territorial Council of the National Health System (ICNHS), a collegiate body in which the Minister of Health participates together with the health advisors of the autonomous communities and cities[4]. In the United States, each State orders doses from the Vaccine Tracking System, up to a limit decided at the federal level[5]. Central governments also need to ensure that subnational authorities have sufficient funding and capacity to procure the necessary quantities of ancillary products such as syringes and gloves (National Academies of Sciences, Engineering, and Medicine;, 2020[12]).

Strengthening control mechanisms between State entities, being each branch responsible for its actions towards the others, and moving beyond emergency rules will help increase support for vaccine policies seen as transparent, balanced and inclusive.

Instituting reliable and transparent legal provisions for the indemnification of vaccine manufacturers, and compensation for vaccine injury is another dimension influencing trust, since compensation provisions provide some reassurance to those concerned about the risks of emergent side-effects. The introduction of indemnification and compensation provisions stems in part from the 1955 Cutter incident in the United States, in which certain batches of polio vaccine administered to the public contained live polio virus, leading to over 250 cases of polio, many of which resulted in paralysis[6]. While the incident led to more effective federal regulation of vaccines, it also prompted a wave of litigation for vaccine injuries, creating a disincentive for manufacturers to enter the vaccine market. To address this disincentive, the National Vaccine Injury Compensation Program was introduced in 1986 to protect vaccine manufacturers from litigation that could threaten the continued development and manufacture of vaccines, and to provide compensation for injures arising from adverse events following routine vaccinations.[7] Subsequently, in 2006 the International Federation of Pharmaceutical Manufacturers and Associations began lobbying for manufacturers to be indemnified against vaccine-related adverse events when participating in pandemic responses.[8]

More recently, it has been reported that contracts established under the US Operation Warp Speed indemnify manufacturers broadly against liability for vaccine injury, and that in its bilateral contracts, AstraZeneca has also been granted protection against legal claims arising from its vaccine products.[9,10] The World Health Organization has also agreed to underwrite a no-fault compensation plan for claims of serious side effects in 92 poorer countries due to receive COVID-19 vaccines via the COVAX sharing

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[4] https://www.newtral.es/vacunas-covid-criterios-reparto-ccaa/20210119/

[5] https://www.cdc.gov/vaccines/programs/vtrcks/index.html

[6] https://www.cdc.gov/vaccinesafety/concerns/concerns-history.html

[7] Centers for Disease Control and Prevention. Historical Vaccine Safety Concerns. At: cdc.gov/vaccinesafety/concerns/concerns-history.html

[8] Halabi S, Heinrich A, Omer SB. No-Fault Compensation for Vaccine Injury — The Other Side of Equitable Access to Covid-19 Vaccines. *N Engl J Med* 2020; 383:e125 DOI: 10.1056/NEJMp2030600

[9] Burger L, Aripaka P. AstraZeneca to be exempt from coronavirus vaccine liability claims in most countries. Reuters. July 30, 2020. At: https://www.reuters.com/article/us-astrazeneca-results-vaccine-liability/astrazeneca-to-be-exempt-from-coronavirus-vaccine-liability-claims-in-most-countries-idUSKCN24V2EN

[10] Lupkin S. How Operation Warp Speed's Big Vaccine Contracts Could Stay Secret. NPR, September 29, 2020 At: https://www.npr.org/sections/health-shots/2020/09/29/917899357/how-operation-warp-speeds-big-vaccine-contracts-could-stay-secret

scheme.[11] As noted above, the rationale is that such provisions provide reassurance to hesitant vaccine recipients that they will be compensated should they suffer an injury as a result of vaccination.

Liability schemes that provide concomitant indemnification of vaccine manufacturers reduce, by design, the financial risks for manufacturers. This can, however, be used to support claims of lack of accountability with regard to the safety of the vaccines that manufacturers put on the market, and the rationale therefore needs to carefully conveyed, particularly among population groups already wary of the safety and benefits of vaccines.

3. Values

3.1 Integrity and accountability in vaccine development are critical

The magnitude and scale of the pandemic, as well as the policies implemented to address it have drawn attention to potential integrity risks. Indeed, the pandemic has led to cost overruns, irregularities and allegations of corruption in the purchasing and supply of medicines, medical materials, services and even the building of hospitals. In addition, instances of price gouging of medicines and equipment have been reported, as well as health professionals stockpiling medications, and a variety of online scams (OECD, 2020[13]). Yet there has been little discussion of specific integrity risks related to the development and distribution of vaccines[12], and how these could affect people's trust in, and the effectiveness of, government vaccination strategies.

Public integrity refers to the consistent alignment of, and adherence to, shared ethical values, principles and norms for upholding and prioritising the public interest over private interests in the public sector (OECD, 2017[14]). Integrity is a core institutional value and driver of trust. According to the OECD Trust Framework, the manner in which public institutions conduct themselves and the degree to which they can be trusted to safeguard the public interest play a key role in influencing the level of trust in them (OECD, 2017[5]).In the context of vaccine development, four main integrity issues are critical for governments in building and enhancing trust.

3.1.1 Strengthening safeguards and accountability in the allocation of public funds and in emergency public procurement

The need to protect public health and ensure public service continuity has rendered public procurement a key priority for governments in developing their responses to the COVID19 crisis[13]. The health emergency has prompted governments to make massive investments in R&D, and commit immense sums to the procurement of vaccines, treatments and diagnostics, both at the multilateral level (through the WHO ACT-Accelerator) and domestically. Although complete and accurate data are not yet available, governments of OECD countries have provided at least USD 13 billion in direct funding for R&D and building of manufacturing capacity for COVID-19 vaccines. This does not include additional billions allocated to advance purchase commitments for vaccines, and broader funding to prop up health systems, procure necessary supplies, and develop other health technologies to respond to the pandemic. Even larger sums – in the trillions – have been allocated by governments to compensate for lost income and support

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[11] https://www.reuters.com/article/us-health-coronavirus-who-vaccines-compe-idUSKBN2AM266?taid=6033fbb0ea66990001cf36d6&utm_campaign=trueanthem&utm_medium=trueanthem&utm_source=twitter

[12] https://globalanticorruptionblog.com/2020/10/26/corruption-and-the-covid-19-vaccine-the-looming-problem-of-distribution/; https://www.oecd.org/coronavirus/policy-responses/public-integrity-for-an-effective-covid-19-response-and-recovery-a5c35d8c/.

[13] http://www.oecd.org/coronavirus/policy-responses/stocktaking-report-on-immediate-public-procurement-and-infrastructure-responses-to-covid-19-248d0646/

struggling sectors of the economy. Such measures were taken very rapidly as the crisis unfolded in the first half of 2020.

To the extent possible, given the required pace of the response, integrity and accountability safeguards must be observed when mobilising such exceptional public budgets, to enhance trust and ensure that funds are allocated in the best interests of the public. In Canada, for example, emergency regulations allow direct procurement from non-prequalified suppliers (in the face of the pandemic, the government simply asked the private sector who could provide products such as masks, disinfectants, etc.). All decisions were documented, however, can be legally challenged, and are subject to audit. In the United States, the Coronavirus Aid, Relief, and Economic Security (Act 116-136) stipulates that the allocation of public funds to research and development of vaccines, and products developed with certain funds must be made available at a "fair and reasonable" price. Moreover, the Pandemic Response Accountability Committee, composed of independent inspectors, was created to audit spending related to the response to COVID-19 to increase accountability and identify waste, and to investigate fraud and abuse in spending specifically related to the response to the coronavirus crisis[14].

3.1.2 Promoting strong integrity standards in interactions between public officials and stakeholders

The second integrity issue in relation to COVID-19 vaccines relates to interactions between public officials and other actors. Stakeholders who participate in policy-making processes, including representatives from the private sector and interest groups, can bring valuable insights to the policy debate. However, it is important to establish clear standards regarding the manner in which private interests influence and interact with policymakers, and to promote openness, integrity and fairness in order to build public trust. Otherwise there is a risk that some interests may have uneven access to the decision-making process and capture policies, to the detriment of the public interest.

A study of interest representation during COVID-19 found that influence activities increased during the crisis – especially concerning economic rescue packages – and that some actors enjoyed access advantages (Junk et al., 2020[15]). Such an environment can favour stakeholders and sectoral interests with experienced and well-funded representatives,[15] who already have access to key decision makers and are able to sustain long-established relationships through phone calls, or other digital means[16].

Recognising that using ethical principles to guide decision-making can enhance trust and solidarity and strengthen legitimacy and acceptability of measures to respond to the pandemic, in March 2020 the Irish government developed an ethics framework for decision-making. The framework establishes ethical principles for decisions, and procedural values to guide the manner in which those decisions are made. Among the principles, fairness, for example, requires that resource allocation decisions are not made arbitrarily, and underscores that a fair decision is one that gives people an equal chance of benefiting from health care resources. Further, responsibility as a procedural value highlights that there should be an opportunity to revisit and revise decisions as new information becomes available, as well as mechanisms to address disputes and complaints. Additionally, in order to promote transparency and timely accountability in lobbying activities, the Office of the Commissioner of Lobbying of Canada ordered all COVID-19 related activities to have digital tags, and included a keyword search capability in an online register of lobbyists, thereby facilitating timely scrutiny of the information by the public[17].

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[14] https://www.pandemicoversight.gov/

[15] See, for example, Olson (2020[47]) on corporate lobbying and conflicts of interest during the COVID-19 pandemic. Wouters et al. (2020[50]) provide background on lobbying by the bio-pharmaceutical industry, which includes vaccine manufacturers.

[16] https://www.politico.eu/article/brussels-lobbying-goes-digital-because-of-coronavirus/

[17] https://lobbycanada.gc.ca/en/registration-and-compliance/covid-19-emergency-funding-and-registration-requirements/

3.1.3 Ensuring transparency and integrity of advisory bodies[18]

Another element in building trust in vaccination strategies is ensuring transparency and integrity in special advisory bodies (such as scientific committees) (OECD, 2014[16]). Many governments have established such entities to inform public decision-making in responding to the pandemic. There is some evidence that various industry sectors may engage with these bodies in order to influence regulatory processes, for example, by developing programmes *"ostensibly intended to tackle health problems arising from the products they manufacture or distribute"* (Mindell et al., 2012[17]). For example, in the aftermath of the A(H1N1) pandemic, scientific and public debates prompted accusations of commercial bias and that governments and public institutions were misled into stockpiling a drug with limited efficacy. An analysis of how the Danish group of experts developed the plan to tackle the pandemic showed that they were lobbied by the industry directly and more subtly (Vilhelmsson and Mulinari, 2017[18]).

In general, advisory activities are excluded from influence frameworks. For example, only 7 OECD countries made publicly available information on agendas, minutes and participants in advisory bodies in 2014 and only 47% OECD countries required to publicly disclose members of advisory bodies involved in regulatory processes at the national level in 2019[19] (OECD, 2014[19]). However, the European Commission Advisory Panel on COVID-19 is an example of a higher standard of transparency in the current pandemic. The group's agenda and meeting reports are published online, thus supporting accountability to the public. In addition, minutes of meetings, participant submissions, and any external contributions received can be made available on request.

3.1.4 Fostering transparency and integrity in medical research

Lastly, governments need to ensure that information about, and results of research into treatments and vaccines are communicated transparently and comprehensively. In the COVID-19 vaccine development process several companies published their clinical trial protocols, but the results of key trials were initially communicated in headlines and via press releases[20], with little detail, prompting speculation[21] prior to publication and peer review about the underlying data. In addition, to date the rapid authorizations of vaccines by stringent regulators have been made mainly under emergency protocols, potentially creating perceptions that the assessments involved less than usual rigour[22], or were based on preliminary or incomplete data[23] (See Box 2 above on how regulatory authorization was expedited while safeguarding safety standards). The transition of these products to full authorization, the peer-reviewed publication both of the results to date and of long term follow-up of subjects in ongoing clinical trials, and complete transparency of post-marketing data from Phase IV trials, routinely-collected datasets, and active and passive pharmacovigilance, should be paramount.

This degree of transparency was not always the norm prior to the COVID-19 pandemic. Several studies have shown that bio-pharmaceutical industry-funded clinical research is often subject to significant publication bias, favouring studies with positive results, as well as cherry-picking of evidence and marketing spin. For instance, a study that examined trials funded by manufacturers of nonsteroidal anti-inflammatory drugs for arthritis showed that none presented results that were unfavourable to the company that

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[18] An advisory body or expert group refers to any committee, board, commission, council, conference, task force, or similar group, or any subcommittee or other subgroup thereof that provides governments with advice, expertise or recommendations. They are made up of public and/or private-sector members and/or representatives from civil society and may be put in place by the executive, legislative or judicial branches of government or government subdivisions.

[19] OECD, PMRI 2019 https://www.oecd.org/economy/reform/indicators-of-product-market-regulation/

[20] For example https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-conclude-phase-3-study-covid-19-vaccine

[21] For example: https://eu.usatoday.com/story/news/health/2020/11/09/pfizers-covid-vaccine-candidate-shows-90-effectiveness-early-test/6011925002/

[22] For example: https://www.nature.com/articles/d41586-020-03219-y

[23] For example: https://www.nature.com/articles/d41586-020-03441-8

sponsored the trial; and that studies funded by the industry were four times more likely to report results favourable to its interests (Smith, 2005[20]). However, since 2015, the European Medicines Agency (EMA) has instituted a policy of increasing transparency, publishing all clinical trial data submitted in pharmaceutical companies' regulatory submissions and assessed its Committee for Human Medicinal Products (CHMP). In addition, for each submission the EMA publishes a European public assessment report on its website, providing the CHMP's assessment of the data.

In addition to ensuring transparency of clinical trial data, it is critical to try to avoid, or where unavoidable, manage, conflicts of interest between the different parties (e.g. researchers, pharmaceutical companies, governments) involved in vaccine development, as well as to strengthen the independence of researchers through funding and oversight mechanisms that insulate them from political and economic pressures. To that end, transparency requirements, together with clear institutional policies on industry sponsorship and conflicts of interest, are needed to preserve research integrity and independence.

The US National Institutes of Health (NIH) maintains a database containing a registry of clinical trials where the public can access a list of clinical studies specifically related to COVID-19. In addition, the US Food and Drug Administration (FDA) requires scientists and organisations that provide inputs to their processes to disclose their revenue sources and funding (Bowers and Cohen, 2018[21]). Additionally, professional associations have developed voluntary measures. For instance, the American Psychiatric Association published a policy in 2007 requiring individuals involved in clinical trials, or in the revision of diagnosis and treatment protocols for mental disorders, to disclose any relationships with industry within three calendar years of their appointment, with updates to be provided annually for the duration of their participation (Wheeler and Cosgrove, 2013[22]). In 2016, the European Federation of Pharmaceutical Industries and Associations (EFPIA) implemented a voluntary code[24] similar to that of the Physician Payment Sunshine Act in the United States. The latter requires medical product manufacturers to disclose to the Centers for Medicare and Medicaid Services (CMS) any payments or other transfers of value made to physicians or teaching hospitals[25], which are then published on a public website[26].

3.2 Institutional trust requires openness and community engagement

Open government refers to a culture of governance that promotes the principles of transparency, integrity, accountability, and stakeholder participation, in support of democracy and inclusive growth (OECD, 2017[23]). Evidence from previous studies shows that in countries where respondents to a population survey reported low levels of openness, increasing openness was a significant driver of institutional trust (OECD/KDI, 2018[24]). In the context of the COVID-19 pandemic and vaccination campaigns, four actions are identified to ensure that government's actions are open to public scrutiny, and that public institutions engage with the population, especially those segments that are most hesitant to be vaccinated.

3.2.1 Proactively releasing timely information and data regarding vaccination strategies, modalities and accomplishments in disaggregated, user-friendly and open source formats

The COVID-19 pandemic has highlighted how a lack of clear information and timely data can cause uncertainty in decision-making and foster mistrust in the population. Ensuring the availability of timely and granular open source data on key issues, such as the number of people vaccinated, the number of doses administered, geographical coverage, and the number of people experiencing adverse reactions, will facilitate data analysis and dissemination in online trackers, news sites, etc.

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[24] https://www.efpia.eu/relationships-code/the-efpia-code/

[25] The Physician Payments Sunshine Act (PPSA) is also known as section 6002 of the Affordable Care Act (ACA) of 2010.

[26] https://www.cms.gov/openpayments/

Proactively releasing information that is up-to-date, reliable and easy to understand about procurement and funding of vaccines, in compliance with access to information laws, is also crucial for people outside government to have confidence in the effectiveness of government vaccination strategies and policies. However, supply contracts and information on their content, including delivery commitments, have generally remained confidential. Only very limited details about the procurement of vaccines were initially released by national authorities, with little or no disclosure of prices, delivery schedules and other contractual terms, or the financing of R&D, all of which are issues of public interest.

While some contracts were eventually published, these were heavily redacted, and only released after repeated requests by civil society organisations, or following disputes between governments and manufacturers over the timing, magnitude and nature of delivery commitments[27]. The absence of reliable and readily accessible information can leave much scope for speculation, false claims and controversies. Ultimately, it can also lead to an erosion of trust if there is a perception among the public, whether justified or not, that information is deliberately being obscured or withheld in order to evade accountability. The proactive release of all non-commercially sensitive details of contracts with vaccine manufacturers, on the other hand, could not only help to build trust, but also reduce the burden that governments and the judiciary system are facing with increased volumes of access to information requests (UNESCO, 2020[25]).

3.2.2 Enhancing transparent and coherent public communication to fight misinformation and the 'infodemic'

Since its onset, the COVID-19 pandemic has been accompanied by an 'infodemic' (WHO, 2020[26]) – an overabundance of information, whether accurate or not. Addressing it with determination is also crucial to enhancing trust.

Most of the problematic content circulated online (generally through social media) is based on manipulations of facts and unproven scientific theories. Scope for the dissemination of such content was opened by governments who, faced with scant and evolving scientific evidence, did not communicate decisively at the start of the pandemic (OECD, 2020[27]).The mere fact of being exposed to 'science in the making', with evolving knowledge, and being exposed to debates in disciplines (e.g. epidemiology) that most people were not exposed to before the pandemic, can contribute to increase vaccine hesitancy due to lack of understanding.

Effective and authoritative public communication can contribute to increased trust. Governments need to ensure that the public is able to access timely and accurate information from trusted sources about why vaccination is the only realistic means of achieving herd immunity in the medium term, and which is essential for the safe reopening of our societies and economies. For example, Belgium has delegated the task of delivering daily briefs to citizens to its crisis centre and scientific experts[28].

However, governments should also be open about residual uncertainties when communicating, given that omitting important pieces of information can foster distrust among the population once new evidence becomes available. Indeed, recent research shows that communicating uncertainty in news articles only produces a small decrease in trust in the numbers being reported and in the source of information (van der Bles et al., 202[28]).

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[27] The dispute between the EU and AstraZeneca on the timing and volume of vaccine deliveries is a case in point, though the eventual release of the heavily redacted contract resolved little of the conjecture surrounding the terms of the deal. The contract refers repeatedly to a requirement that AstraZeneca makes its "best reasonable effort" to manufacture and deliver vaccine doses according to the contract's schedule, prompting speculation as to whether in its negotiations the EU may have traded away certainty for price.

[28] https://www.ft.com/content/3d24b654-187e-4270-b051-acfc350498d2

Efforts to increase people's ability to detect misinformation and their media and scientific literacy can contribute to reduce the uncertainty that drives vaccine hesitancy. Some countries, (e.g. Spain[29]) have begun monitoring disinformation campaigns in a systematic way, and have implemented action plans or laws in response. For example, in 2018 France passed a law against the manipulation of information[30]. Other approaches include toolkits to help citizens detect false information. Other countries have created educational materials about disinformation. The Danish health authority has published a video on its website providing guidance on how to detect fake news, including, for example, by verifying whether it comes from an authoritative source and checking whether it is published in multiple outlets.[31] 'Pre-bunking', understood as exposing audiences to small doses of misinformation to explain their flawed reasoning, can help hesitant people overcome their fears about the COVID-19 vaccine (OECD, 2020[27]). Together with the University of Cambridge, the UK government has developed "Go Viral!"[32], a game to expose people to the techniques used for spreading misinformation on social media.

Effective communication also entails sound knowledge of the various audiences (e.g. media consumption, languages spoken), partnerships with community leaders and subnational governments to overcome barriers to information, and empathy (OECD, 2020[27]; OECD, 2020[29]). In many countries ethnic minorities are reported to be more vaccine hesitant. Moreover, a recent study showed that, in Ireland and the United Kingdom, population groups that are resistant to taking vaccines against COVID-19 resort to social media as a source of information more than vaccine-accepting segments, and have lower levels of trust in information coming from news agencies, government agencies and health care professionals. People who are unwilling to get vaccinated were also found to hold stronger religious beliefs (Murphy et al., 2021[30]). In Israel, the Ministry of Health launched a public relations campaign to encourage vaccination among ultra-orthodox Jewish communities. Religious leaders of some of these groups communicated the importance of being vaccinated to their members, including sharing pictures of their own vaccinations. Box 4 provides other examples of good practices in public communications by governments.

Box0 4. Good practices in public communications during the COVID-19 pandemic

Leveraging the use of behavioural science to increase vaccine confidence in Canada

Impact Canada led the implementation of the World Health Organization (WHO) Behavioural Insights data collection tool, which was applied in several waves, surveying around 2,000 Canadians on key behavioural areas including public risk perceptions, information sources and vaccine confidence. The findings revealed that citizens who trust the government correspond to those who trust vaccines.

In addition, Impact Canada analysed over 125 sources of information to gain insights on successful Covid-19 international communication campaigns and policy responses. The results showed that demonstrating efficacy, evoking emotional responses, emphasizing collective action and adaptiveness, making social norms salient, and addressing pandemic fatigue were effective ways of communicating.

Chatbots and call-contact centre in Estonia and Slovenia

Estonia's Communication Unit established an automated chatbot with nearly a thousand questions related to the Covid-19 crisis on multiple aspects, and is embedded in several public websites. In an effort to cater to minorities, the content is also translated into Russian and English. Slovenia's government set up a call-contact center for citizens seeking information and answers, as well allowing them to express their fears and worries while talking to someone knowledgeable, trustworthy and understanding. The calls are answered by medical students of the University of Ljubljana, under the professional supervision

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[29] https://boe.es/boe/dias/2020/11/05/pdfs/BOE-A-2020-13663.pdf#BOEn

[30] https://www.gouvernement.fr/action/contre-la-manipulation-de-l-information

[31] https://www.sst.dk/en/english/corona-eng/vaccination-against-covid-19

[32] https://www.goviralgame.com/

by doctors of the Clinic for Infectious Diseases and Febrile Conditions who receive training and updated information to respond to these calls.

Partnerships with influencers in Finland and Korea

Finland's Prime Minister's Office, in collaboration with the National Emergency Supply Agency and the private sector partnered with social media influencers to provide clear and relevant information for younger audiences that can be harder to reach through traditional channels. Following a comprehensive influencer mapping, over 1800 Finnish influencers helped the government share reliable information on health measures to empower and engage citizens in the fight against COVID-19. A follow-up survey conducted revealed that: " 94% of followers felt they got enough information and instructions about coronavirus via influencers with the over half saying influencer communication affected their behaviour" and "97% of respondents consider the COVID-19 information shared by influencers reliable".

During the pandemic, the South Korean Ministry of Health and Welfare launched the "Thanks Challenge" on Instagram, with the aim of expanding the reach of awareness raising efforts around COVID-19 measures. The initiative invited citizens to share a picture of themselves at home to promote social distancing and "stay at home" measures. Celebrities and influencers also took part in the campaign and helped the government disseminate official information about the disease and its symptoms.

Targeted messaging through social media in Italy

During the second wave of the pandemic, a key priority was to address COVID-related messages to selected audiences that appeared to be the most reluctant to follow the rules set by the Italian Government in order to limit the spread of the virus: wear a mask, keep social distancing and wash your hands. As such, the Presidency of the Council of Ministers implemented a multi-platform campaign on main social media focused on these three elements, with ad-hoc messages for selected audiences such as youth, or small and medium business owners. Studies concluded that a 3-week campaign on Facebook and Instagram led to a 2.4 percentage point increase in remembering the advertising campaign and a 1.5 point increase in compliance with the three rules.

Sources:

OECD (2020), The Covid-19 crisis: A catalyst for government transformation?, OECD publishing, Paris, http://www.oecd.org/coronavirus/policy-responses/the-covid-19-crisis-a-catalyst-for-government-transformation-1d0c0788/ ;
OECD (2020), Building resilience to the Covid-19 pandemic: the role of centres of government, OECD publishing, Paris, http://www.oecd.org/coronavirus/policy-responses/building-resilience-to-the-covid-19-pandemic-the-role-of-centres-of-government-883d2961/ ;
Media Pool (2020), Combating coronavirus together by sharing reliable information, available online at https://pinghelsinki.fi/en/combating-coronavirus-together-by-sharing-reliable-information ;
World Bank (2020) Coordinating pandemic responses from the center of government: Why country context matters, https://blogs.worldbank.org/governance/coordinating-pandemic-responses-center-government-why-country-context-matters

3.2.3 Engaging the public in the design of vaccination strategies

Governments need to listen to people's concerns and the reasons why they do not trust the approved vaccines against COVID-19, and cater to their need for reassurance. While vaccine hesitancy is characterised by mistrust in experts (Stecula, Kuru and Jamieson, 2020[31]), this is unrelated to their competence or technical knowledge of the subject, but rather to perceptions that experts do not act in good faith (Eiser et al., 2009[32]). For this reason, one-way communication about the benefits of vaccination will not suffice in convincing people to modify their views. Instead, allowing vaccine-hesitant people to express their views, expressing empathy, and dealing with resistance without antagonism, are effective ways of promoting behaviour change (Gagneur et al., 2018[33]). Following this approach, the Economic, Social and Environmental Council of France produced a website[33] to ask citizens about the reasons why they are or are not willing to be vaccinated.

To sustain or restore confidence in vaccines, a thorough understanding is needed of each population's specific vaccine concerns, historical experiences, religious or political affiliation, and socioeconomic status.

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[33] https://participez.lecese.fr/

For example, in the United States, African-Americans are less willing to be vaccinated than other groups (Reiter, Pennell and Katz, 2020[34]).This distrust may be linked to personal or vicarious, negative experiences with the health care system and other public services, as well as current and historical abuses of power (e.g. lack of informed consent) towards these groups. Evidence shows that African-Americans tend to experience lower communication quality (such as information-giving and participatory decision-making) with physicians, especially those who are not people of colour (Johnson Shen et al., 2018[35]). Underprivileged groups are also more exposed to COVID-19 because of their living conditions and/or occupations (which may prevent them from isolating at home or sustaining effective social distancing in the workplace), and have less access to safety nets should they become severely ill (OECD, 2020[36]). All of these factors combined contribute to scepticism about government recommendations.

Clearly motivated and communicated decisions about vaccination strategies are also necessary to increase vaccination acceptance. Demand for COVID-19 vaccines will continue to exceed supply for several months (OECD, 2021[37]). Many countries must therefore prioritise the administration of limited vaccine stocks. Clarity in how these decisions are made is essential to gaining the population's trust in government action. For instance, health workers and workers in essential services are particularly exposed as they are at the 'frontline' of the fight against the pandemic. Also, the elderly and people with co-morbidities have higher probability of developing severe forms of the disease, and these groups have seen much higher mortality rates than the rest of the population. It is widely recognised that immunising these groups first would contribute to alleviating pressure on health systems. Communication efforts on why these two groups are in almost all countries seen as priority population would facilitate acceptance and foster trust in intentions.

Successful vaccination campaigns require extensive and well-managed community engagement. All population groups need to be involved in the design and implementation of grassroots initiatives that will build trust in vaccinations and strengthen relationships between communities and their governments, particularly for marginalised or underserved segments of the population[34]. In the case of COVID-19 this requires a specific emphasis on addressing issues of concern regarding the speed of development and of approval of the vaccines (see Box 2).

When done appropriately, community engagement increases the likelihood that communities lead on issues that affect them, use services, and build resilience. Community engagement expands the influence of local actors, facilitates access to and understanding of information, enables and promotes the right to provide feedback on the received services, and builds on existing local capacities[2]. In the United States, recent pilot programs in California offer relevant lessons in the value of community engagement.[35] For example, a longitudinal cohort study that began in 1999 as an examination of the effects of pesticide use on farmworkers across California's Central Valley recently shifted to investigating the impacts of COVID-19. In its latest report, researchers found that in October 2021, 20% were SARS-CoV-2 antibody positive, but as many as half expressed reluctance to accept a COVID-19 vaccine, as they did not trust the government. Investigators quickly realized that building trust in vaccination among the cohort would require inclusive community participation.

There is an expectation that the more the public are involved in decisions regarding the approval and delivery of vaccines, the more likely they will be to accept vaccination. Deliberative democracy[36] is gaining traction as a way of addressing pressing policy problems, in areas such as urban planning, health and environment (OECD, 2020[38]). These processes are generally successful when they are asked to address

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[34] https://www.who.int/publications/i/item/WHO-2019-nCoV-vaccination-community-engagement-2021.1

[35] thelancet.com/journals/eclinm/article/PIIS2589-5370(21)00034-1/fulltext

[36] By representative deliberative democratic processes it is meant processes that involve a group of randomly selected people, broadly representative of society, who are provided with the time and evidence to deliberate on a policy issue and propose collective, informed recommendations to public decision makers.

moral dilemmas (such as whether to implement 'vaccine passports') and given sufficient time to weigh arguments and evidence. For example, in the case of Scotland, a citizens' panel was set up to evaluate the governments' response to COVID-19, weighing evidence from experts in fields ranging from epidemiology to law and economy, and provide a report to the Parliament's COVID-19 committee[37].

Consulting and engaging citizens and local communities will also help to design the vaccination strategy most adapted to the local context, thus overcoming some of the logistical challenges and vaccination hesitancy. For example, Canada's COVID-19 immunization plan involves collaboration between the Federal Government; the provinces; the territories; First Nations, Inuit and Métis leaders; and municipal governments, among others[38].

3.3. Fairness as a foundation for trust

Fairness as a dimension of public trust refers to the consistent treatment of citizens and business by governments, and the pursuit of progress for the benefit of society as a whole. As such it is a hallmark of human behaviour that underlies social cohesion.[39] Individuals or organisations that feel unfairly treated may decide not to cooperate even if the consequences are not in their interest (Giacalone and Greenberg, 1997[39]); (Lind et al., 2000[40])). Conversely, when citizens feel fairly treated they are generally more willing to incur costs for the greater good—provided they feel confident that others are doing the same (Lunn, 2014[41]). Whether individuals or organisations, including governments, are perceived as behaving fairly is thus a key determinant of their trustworthiness. COVID-19 vaccines are perceived to be goods that, once available to most people, will allow an eventual return to some level of normalcy. People therefore expect that vaccines and their benefits be distributed fairly. In terms of COVID-19 vaccines, there are two dimensions of fairness to be addressed: first, fairness in allocation within countries, and second, fairness in access globally.

Because of vaccine manufacturing constraints, COVID-19 vaccination programmes are being phased, with populations prioritised according to their risk and with highest priority accorded to frontline health workers, the elderly, and others at risk of more severe disease in most countries. In stratifying populations governments must ensure they manage public expectations and explain not only why it is fair but also why prioritising specific populations is both efficient and essential to bringing the acute phase of the pandemic under control.

Ensuring that the vaccine is accessible to everyone and that no geographic, cultural, social, ethnic or financial factors lead to exclusion or delay in vaccinating some groups are other key elements of fairness that will contribute to increase trust in vaccines and immunization programs. Communities must be engaged using culturally and linguistically inclusive approaches to disseminate key messages. For example, recent data from the UK show that willingness to be vaccinated among minority ethnic communities is significantly lower than in the broader population, with up to 72% of minorities indicating that they are unwilling (Robertson, 2021[42]). In the United States, 23 states currently publish vaccination statistics disaggregated by race. An analysis of these data has shown that people of colour are receiving a disproportionately low share of vaccinations. In Virginia, for example, African-Americans represent 19% of residents (and account for 21% of the state's COVID-19 cases and 24% of its deaths), but have received only 12% of vaccines administered in the state thus far[40]. But some states, such as Colorado, are taking

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[37] https://www.parliament.scot/newsandmediacentre/116952.aspx

[38] https://www.canada.ca/content/dam/phac-aspc/documents/services/diseases/2019-novel-coronavirus-infection/canadas-reponse/canadas-covid-19-immunization-plan-en.pdf

[39] See, for example, McAuliffe et al. (2017[67]) and https://www.psychologicalscience.org/news/releases/are-humans-hardwired-for-fairness.html.

[40] https://time.com/5936135/covid-race-data/

actions to increase equitable distribution, with the objective of reaching racial and ethnic minorities and rural residents who typically have poorer access to health care. The authorities plan to send 40% of their vaccine doses to local public health agencies and safety net clinics, and 15% to "equity clinics" located in underserved areas[41]. California took similar steps, announcing that 40% of its vaccine allocation would be directed to 446 communities in the bottom quartile of the state's Healthy Places Index[42].

For minorities, among whom trust has been eroded by discrimination, under-representation in health research and vaccine trials, and negative experiences within culturally insensitive healthcare systems, mistrust is likely to be amplified. In order to address this issue in the United Kingdom, local NHS authorities will receive extra financial support to boost uptake of COVID-19 vaccine in ethnic minorities and marginalised and underserved communities.[43]

The pandemic has also severely affected the homeless, for whom isolating at home, regular hand-washing, and social distancing are all the more challenging. For this reason, Denmark has begun to include the homeless in its priority populations. Similar actions are being taken by municipalities in the US city of Detroit, and in parts of Montreal in Canada. In Austria, homeless people are part of the extended risk group, expected to be vaccinated in Phase 2, beginning in March 2021[44].

However, in addition to considerations of fairness in prioritising certain population groups within countries, as noted above, governments also need to explain why it makes sense to distribute vaccines fairly at a global level. A needs-based global allocation rather than "our country first" approaches are not only fairer, but also the most efficient way to bring the pandemic under control, reopen societies, and rebuild the global economy (OECD, 2021[37]). Flows of people and goods from one country to another cannot be fully interrupted, and will continue to be conduits for the transmission of infection. Furthermore, as long as active transmission continues somewhere in the world, the risk of emergence of a viral variants will persist, potentially jeopardizing the entire global immunization effort.

Accordingly, putting in place mechanisms to ensure that vaccines reach all countries, and prioritising locations of greatest need, will be important for achieving a global recovery. Explaining this rationale effectively – that vaccine nationalism will ultimately be self-defeating as it will hinder the revival of the global economy, and that it is not only a matter of fairness, but also a question of efficiency in bringing about the end of the pandemic – will be critical in maintaining trust, particularly where governments choose to donate vaccine or re-prioritise access.

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[41] https://www.axios.com/colorado-covid-vaccine-distribution-equity-d38aaea8-ebc3-4e27-a987-5521236ff504.html

[42] https://www.sacbee.com/news/equity-lab/article249731623.html

[43] https://www.bmj.com/content/372/bmj.n580?int_source=trendmd&int_medium=cpc&int_campaign=usage-042019

[44] https://scoop.me/denmark-homeless-covid-19-vaccination/

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