

EUROPHIA CONSULTING Supply Chain Operations



SURVEY **COVID-19 Immunisation Program** **Supply Chain Challenges**

Authors: Eelco Dijkstra, Europhia Consulting

Laurent Foetisch, Supply Chain Operations

Introduction

In August 2020, we conducted what is probably one of the first global surveys asking people around the world to voice their opinions on aspects related to future COVID-19 immunisation programs and in how the public currently perceives these events.

Despite all the emotional and financial stress people have gone through over the past 7 months including lockdowns, curfews, illness and death, the survey clearly highlights the apprehension many people seem to have to readily accept a COVID-19 vaccine once one becomes readily available.

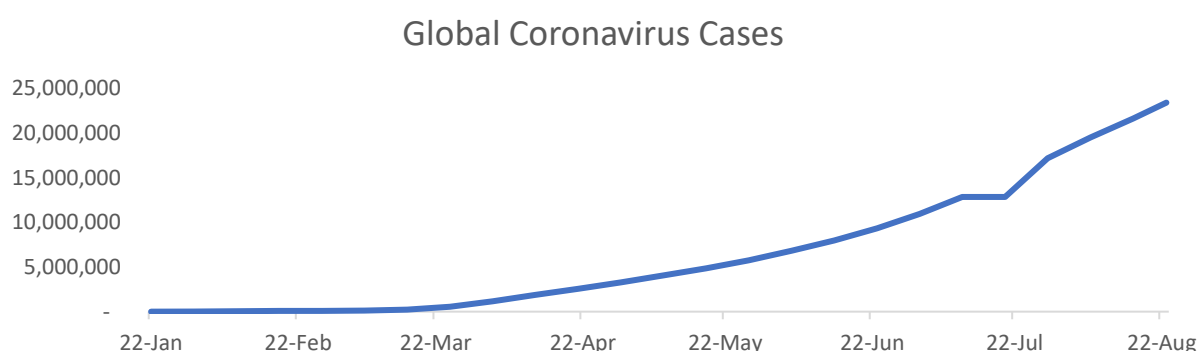
In general, participants in our survey from all over the world seem to have a concern around the role of government in handling the availability and distribution of a national immunisation program by itself. This is perhaps little wonder as many governments around the world have been struggling to take the necessary actions to stay on top of the COVID-19 situation from the very start and the general public has possibly become wary of this. The survey highlights that the general public would showcase more confidence in the vaccine if the project is undertaken jointly by the government and relevant private sector companies, who have the expertise in supply chain and distribution.

Public Acceptance is Vital

The survey highlights a real need for governments around the world to ensure there is widespread acceptance through public awareness and education into their vaccination program if it wants to be successful in an effective immunisation program.

Some COVID-19 Pandemic Statistics

As of 23rd August 2020, global confirmed registered cases, according to the John Hopkins Institute, stands at 23.4 Million and 808,995 deaths. In reality, these numbers are probably much higher and still going up sharply.



The World Health Organisation WHO, each day, is still reporting record daily case and death numbers around the world as the pandemic continues to create havoc to livelihoods and economies.

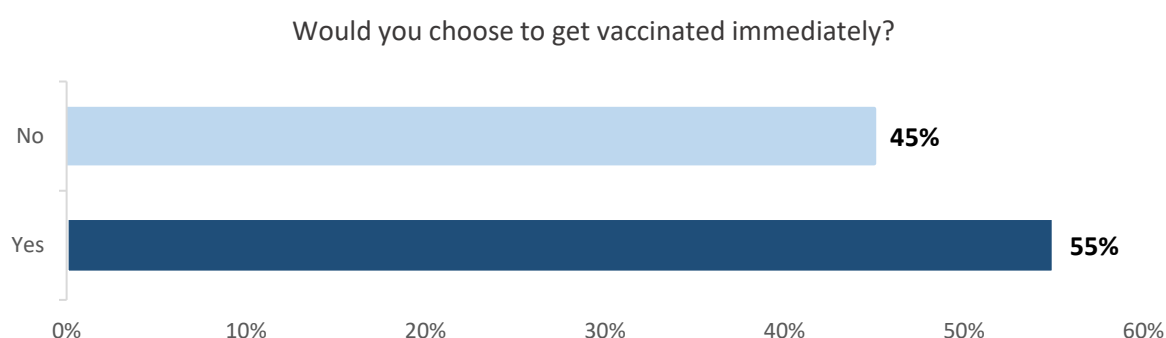
Reported Cases and Deaths by Wold and Country					
S.No.	Country	Total Cases	Total Deaths	Total Recovered	Active Cases
	World	23,401,402	808,995	15,935,608	6,656,799
1	USA	5,841,428	180,174	3,148,080	2,513,174
2	Brazil	3,582,698	114,277	2,709,638	758,783
3	India	3,049,855	56,875	2,281,982	710,998
4	Russia	951,897	16,310	767,477	168,110
5	South Africa	607,045	12,987	504,127	89,931
6	Peru	585,236	27,453	391,144	166,639
7	Mexico	556,216	60,254	380,492	115,470
8	Colombia	533,103	16,968	359,792	156,343
9	Spain	407,879	28,838	150,345	228,696
10	Chile	395,708	10,792	369,730	15,186

As of 23rd August 2020

Source: Worldometer - www.worldometers.info

Public Confidence and Awareness

With so much at stake at a macro level, one would expect people around the world to be rejoicing at the thought of having a vaccine very soon and to get back to their “normal routine”. However, the survey clearly highlights that much needs to be done by government in the area of public awareness and education to win over public sentiment in this area.

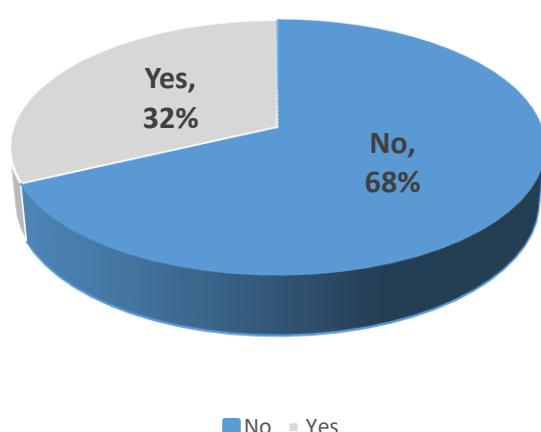


The survey shows that, 45% of participants are skeptical to get immunised immediately if the vaccine comes out tomorrow. Such a high percentage is a testimony of the apprehension people show in terms of accepting a new vaccine without clearly understanding all the product integrity and safety aspects. The results suggest that governments around the world need to focus on public education to ensure that the public is convinced about all the product safety aspects. Governments need to think about initiatives they need to undertake to spread awareness and make people comfortable about being a part of any national vaccine program.

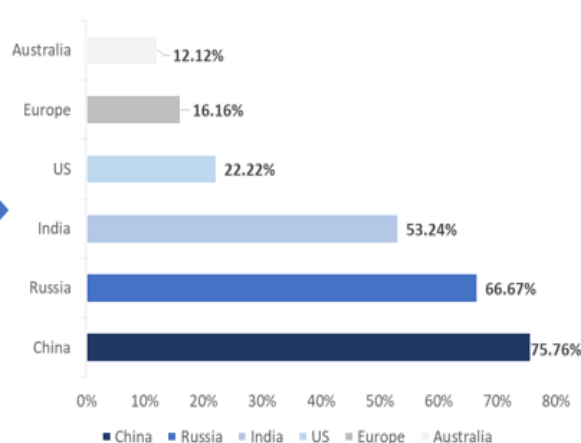
Vaccine Country of Origin

According to the survey conducted, the country of vaccine origin is one of the primary factors of concern that people would consider before getting themselves immunised. Many of the respondents show high resistance to vaccines coming from non-western countries such as Russia, China, and India.

Would your choice of taking the vaccine differ depending on the vaccine manufacturing country of origin?



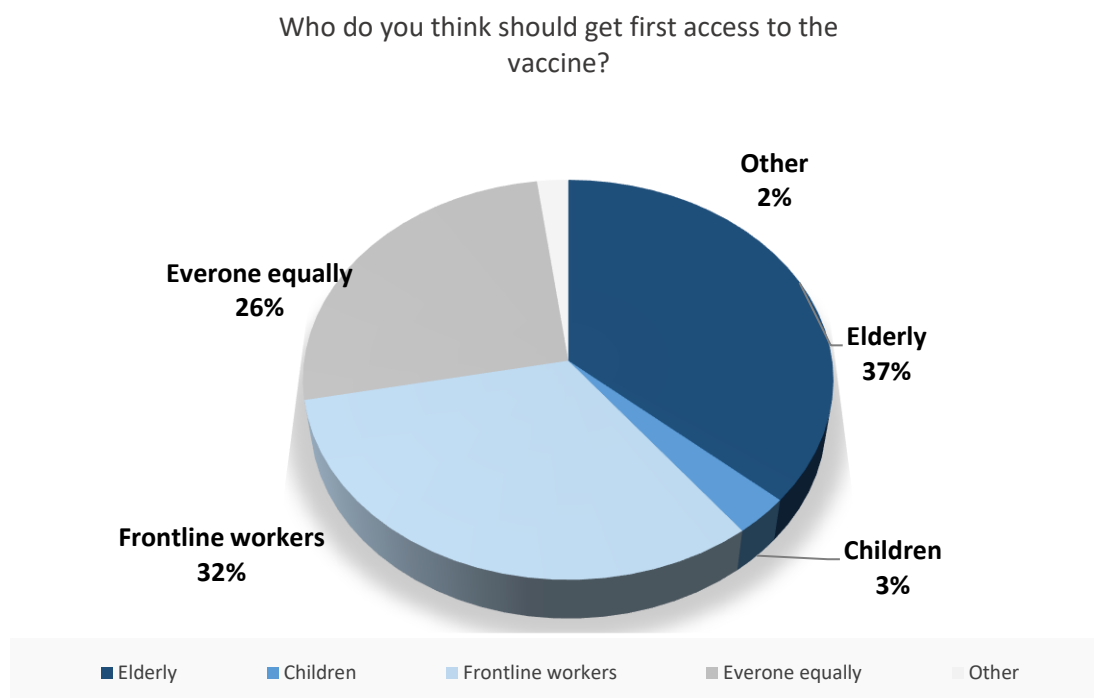
Which countries would you be hesitant of in taking a vaccine from?



A good public education strategy should address these “perception” concerns related to the origin of any vaccine to ensure that the public knows that it is safe. Providing full transparency as to why government has chosen a certain vaccine could help in ensuring needed community “buy in”. It is vital to build trust amongst the public on product reliability, so that people are convinced that the vaccine is safe to use for themselves and their loved ones and does not carry adverse side effects, both in the short- and the long-term.

Who should get first access?

With respect to who should get first access to the vaccine, not surprisingly, the elderly and frontline workers gained the most votes.



However, from a government immunisation perspective ultimately the objective will be to have as many people as possible vaccinated. This too raises ethical questions on whether people should participate voluntarily or whether such vaccination programs somehow be made compulsory by governments to ensure maximum effectiveness.

Laws against stock piling?

"But even if lots of vaccine is made, there seems to be no way to force countries to share it. During the 2009 H1N1 influenza pandemic, Australia was among the first to manufacture a vaccine, but did not immediately export it because it wanted vaccines for its citizens first", says Amesh Adalja of the Johns Hopkins Center for Health Security in Baltimore, Maryland. "Most countries have laws enacted that allow the government to force manufacturers to sell domestically, and I don't see this changing," he says.

CEPI (Coalition for Epidemic Preparedness Innovations (CEPI) says that there is no agreement yet on the principles or rules for a fair allocation system incorporated into contracts that can be consistently applied and enforced. There is also no global entity responsible for ordering the manufacturing of vaccines on a global scale and paying for it.

"This is a challenge that must be urgently and collectively addressed by governments, global health leaders and regulators while COVID-19 vaccine development is continuing," says Mario Christodoulou, a communications manager at CEPI.

Another important ethical aspect related to access is whether a country has the financial means to "buy" a position on the priority list with manufacturers. Bill Gates recently wrote "During a pandemic, vaccines and antivirals shouldn't simply be sold to the highest bidder. They should be available and affordable for people who are at the heart of the outbreak and in greatest need. Not only is such distribution the right thing to do, it's also the right strategy for short-circuiting transmission and preventing future pandemics."

In a recent interview with Merck's CEO, Kenneth Frazier, he noted that the development, manufacturing and distribution of a vaccine against Covid-



19 is "a bigger challenge than the science challenge alone". He believes that one of the problems is that we are living in a time in which countries compete for access to the supplies of any potential Covid-19 vaccine. Subsequently he noted that this could lead to difficulties in getting

the vaccine to areas of the world where it is most needed and where people cannot afford access.

Taking these expert opinions into perspective, it is advisable for governments to start working on strategies on how to get the vaccine into the country as safely and quickly as possible. A lot of countries have already started placing purchase orders or entering into manufacturing agreements to get millions of dosages of vaccines as soon as the vaccines proves successful. For example, AstraZeneca reached an agreement with Europe's Inclusive Vaccines Alliance (IVA) to supply up to 400 million doses of the Oxford's COVID-19 vaccine, with delivery starting by the end of 2020.

Moreover, a major proportion of our participants also believe that the vaccine should be distributed equally amongst everybody and therefore, government's planning should not just consider the elderly and frontline workers but the entire population.



Is a Multi-Parameter Ethical Framework for Vaccine Distribution the way to go?



Establish an efficient task force of government bodies, private sector companies, and supply chain experts to determine accessibility, production and distribution of COVID-19 vaccine.



Develop a nationwide plan for vaccine distribution that balances effectiveness, efficiency, and equity, keeping into consideration age, medical needs and type of profession aspects of the population. Ensure maximum inclusion from within the community.



Develop an immunisation public education and awareness campaign which explains the choice for a certain vaccine, its safety aspects and why an inclusive program is so important for everyone.



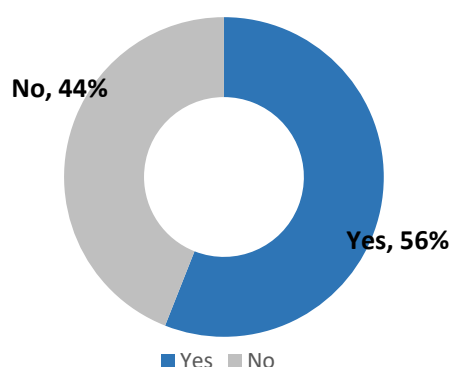
Develop protocols for reallocation if required to meet unexpected fluctuations in demand.



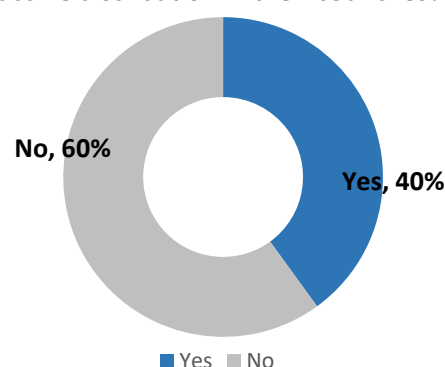
Global Supply Chain Management

Once a vaccine passes successfully through all the clinical trials, the ultimate goal will be to deliver the vaccine to every part of the world timely and efficiently. Whilst 56% of the population of our survey believe that global supply chains are ready to handle such a massive global demand, there is still a lot to be done to be completely prepared. Government should work together with logistics and transportation service providers to build efficient strategies around inbound shipments, storage and warehousing and outbound distribution. Supply chains will need to be tested, together with logistics providers, before the actual physical distribution of vaccine occurs. This is to ensure that end-to-end transportation, to get the vaccine into the country and to the entire population, is safe and secure from a product integrity and security perspective.

Do you think global supply chains are ready to handle the global vaccines for Covid-19?



Do you think governments around the world are ready to manage successfully the vaccine distribution in their countries?

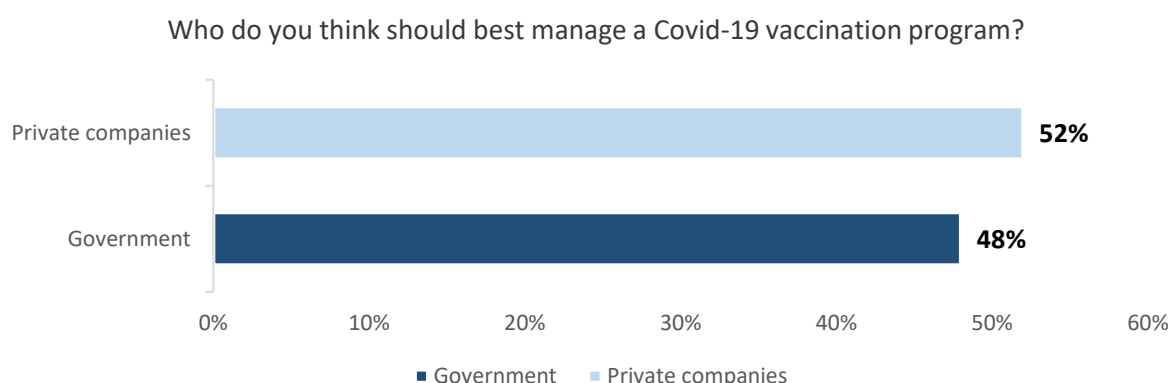


Since COVID-19 vaccinations need to be made available to an entire country population at once, supply chains might not be completely ready for such a huge disruption and need well-thought through plans to manage from a risk management perspective. As per the survey, many people seem apprehensive on governments' being able to manage the COVID-19 vaccination program alone and believe that government and private sector companies in logistics and distribution should work together hand-in-hand to start building strategies on how to best get the vaccine to the entire population as safely and quickly as possible.

Collaboration between governments and private sector companies

Manufacturing and logistics companies will need to assist governments in this historic undertaking as these companies have the expertise and logistics assets to support any such global distribution program. The World Health Organization (WHO) could also play a visible and orchestration role in such a program between governments.

Jim Rice, deputy director, Massachusetts Institute of Technology (MIT) Center for Transportation and Logistics (CTL) recently said that compared to other disruptions, the COVID-19 pandemic is quite unique. He added 'The loss of the seven core resilience capabilities; acquiring materials, transporting, capacity to communicate, convert, human resources, financial flows and distribution to customers and consumers has been much more than in any other disaster.'



To meet the massive demand for COVID-19 vaccine and distribute it to the entire population efficiently is an enormous task. In the current landscape, the general public would prefer governments to co-work with private sector companies and ensure that vaccines are distributed efficiently. It could be precarious for government to manage any vaccine distribution program alone without seeking involvement from private sector companies. It is important for governments to reach out to companies to ensure immunisation programs get to people quickly, safely and efficiently.

In a nutshell, governments, around the world, need to develop strategic plans around their national immunisation programs. They need to make decisions on which vaccine(s) to support and make financial budgets available to assist in the purchase and distribution. Governments should engage more with the private sector to design, test and execute the needed end to end supply chains to distribute a vaccine. They also need to think about how best to engage the general public in their plans. Public safety concerns play an important role in addressing transparency ahead of political motivations.

Governments in many countries have been slow to respond and at times invisible due to political reasons. As a result, such in-action will only extend the impact of the Covid-19 virus. The United Arab Emirates is a good example of a country where the government has acted as an “early mover” on all aspects in dealing with the COVID-19 pandemic compared to many other governments and could serve as a model for other countries to follow.

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*Interested in getting a copy of the detailed survey results?
Reach out to us at europa@outlook.com*

Getting ready for the immediate challenge?

Governments and private sector companies need to work together to build an effective strategy to get the vaccine to the public safely and timely.





Europhia Consulting is an international management consulting company specialized in the logistics and supply chain industry in the life sciences sector. We operate global assignments for our clients. The opinions are based on the author's own experience and understanding of the dynamics within the sector.

Eelco Dijkstra of Europhia Consulting has worked in supply chain and consultancy for over 25 years and in recent years has focused his expertise on the global pharmaceutical sector. He has worked a number of years for TNT Express and Kuehne & Nagel and in recent years managed his own management consultancy practice.

Mobile: +31 624661688

Email: europhia@outlook.com

Website: www.europhia.com



Supply Chain Operations SA, based in Switzerland, is a specialized healthcare supply chain consultancy firm created in 2011 to serve the biopharmaceutical and medtech industry. We bring more than 120 years of end-to-end supply chain expertise to our valued customers.

Laurent Foetisch of Supply Chain Operations has extensive experience as a supply chain executive responsible for managing a global biopharmaceutical company in Switzerland for more than 20 years. In 2007 Laurent managed the supply chain integration between Merck and Serono with the responsibility to create one central supply chain structure using common processes and tools. Since 2011, Laurent runs its own supply chain boutique consulting firm named Supply Chain Operations SA.

Mobile: +41 792052332

Email:

laurent.foetisch@supplychainoperations.ch

Website:

www.supplychainoperations.ch



Both companies work together on strategic management assignments for clients globally. We do not pretend to have been able to capture all challenges and all insights and have deliberately focused this strategy paper on some of the key challenges we see based on our work with clients within the industry. For any questions or comments about this strategy paper, please do not hesitate to reach out to us.