FEBRUARY 2021

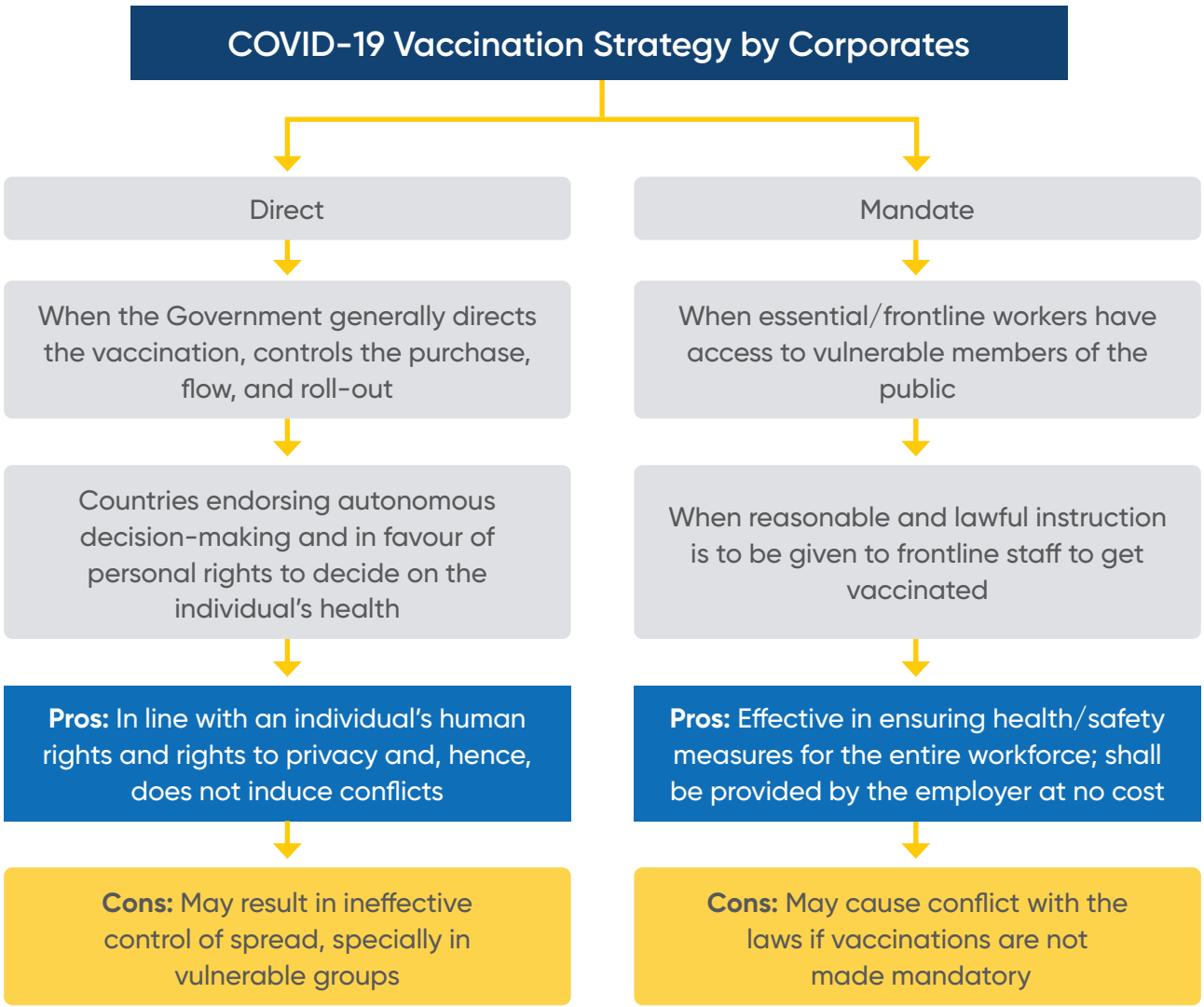
INDIA'S COVID-19 VACCINATION PLAN

Disclaimer: All pieces of information on COVID-19 vaccine have been collated from secondary research and are accurate on the date this document was prepared. The document is updated till January 16, 2021.

PRUDENT
THE FUTURE OF INSURANCE

COVID-19 vaccination as a mandate by employers

COVID-19 vaccination in India is voluntary and not a mandatory one for any group; however, people are advised to receive prescribed doses to acquire immunity and protection against coronavirus and, especially, a possible second wave of infection. All required steps are being taken to ensure that everyone gets inoculated.



The recommended approach in this regard is adequate communication on the importance of vaccination to acquire immunity and protection among family members, colleagues, relatives, and friends against a highly contagious virus.

It is important that frontline workers who are in contact with the general population get vaccinated. It can be done through a strong communication pitch even if it cannot be made mandatory as per the law of the land.

Note: In case a mandatory vaccination drive is considered as an option, we recommend that it needs to be looked at from all the possible legal angles as well.

Expat Coverage

Expats can be vaccinated as per the company's policy; however, they need to be informed in detail about the contradictions/ adverse reactions the vaccination may produce. The consent form needs to be explained to them before going ahead with their inoculation. There needs to be a consideration of the liabilities (including contractual) that may arise, and a legal opinion should be taken regarding the same. The Government of India (GOI) has offered to vaccinate foreign diplomats, and over 3,000 names have been sent by consulates that include diplomats and their family members.

Market Insight

Several Indian corporates have expressed their desire and plans to buy COVID vaccines for their employees and family members once it is available in the market.

Corporates leading these initiatives represent leading steel manufacturers, automobile manufacturers, FMCG, pharma, and biotechnology and hospitality industries.

The corporates are in discussion with vaccine manufacturers to explore options to secure vaccine doses for their employees once the GOI covers the priority groups and vaccine is available for commercial purchase/usage.

One of the FMCG giants has stated that they intend to strongly communicate to their employees to get vaccinated and could buy vaccines to supply with people in poorer countries.

Industry bodies like FICCI have come up with some recommendations to overcome logistic/administrative challenges in covering the larger population post the initial drive of targeted population. The public-private partnership to expedite the vaccination process faster than the estimates is at the heart of recommendations.

One of the suggestions is that corporates should be allowed to choose their preferred vaccine candidate after necessary regulatory approvals are obtained.

It is suggested that the population which can pay for the vaccines should be enabled to do so outside the government's current demarcation of the priority population to facilitate faster coverage of the vaccination drive.

Corporates have requested the GOI to approve using their Corporate Social Responsibility (CSR) funds to vaccinate their employees.

Definitions

Immunity

Immunity offers protection from an infectious disease. If you are immune to a disease, you can be exposed to it without becoming infected. Immunity to a disease is achieved through the presence of antibodies to that disease in a person's system. Antibodies are proteins produced by the body to neutralize or destroy toxins or disease-carrying organisms. Antibodies are disease-specific.

There are two types of immunity: active immunity and passive immunity.

Active Immunity

Active immunity results when exposure to a disease organism triggers the immune system to produce antibodies to that disease. Exposure to the disease organism can occur through infection with the actual disease (resulting in natural immunity) or introduction of a killed or weakened form of the disease organism through vaccination (vaccine-induced immunity).

Passive immunity

It is provided when a person is given antibodies to a disease rather than producing them through his or her own immune system.

Vaccine

A product that stimulates a person's immune system to produce immunity to a specific disease, protecting the person from that disease. Vaccines are usually administered through needle injections but can also be administered by mouth or sprayed into the nose.

Immunization

A process by which a person becomes protected against a disease through vaccination. This term is often used interchangeably with vaccination or inoculation.

Vaccination

The act of introducing a vaccine into the body to produce immunity to a specific disease. Vaccination is the administration of agent-specific but safe, antigenic components that, in vaccinated individuals, can induce immunity against the corresponding infectious agent.

Purpose

Vaccination uses your body's natural defences to build resistance to specific infections and makes your immune system stronger.

How do vaccines work?

Vaccines reduce risks of getting a disease by working with your body's natural defences to build protection. When you get a vaccine, your immune system responds. It:

a. Recognizes the invading germ, such as the virus or bacteria

b. Produces antibodies. Antibodies are proteins produced naturally by the immune system to fight disease

c. Remembers the disease and how to fight it. If you are then exposed to the germ in the future, your immune system can quickly destroy it before you become unwell

d. The vaccine is therefore a safe and clever way to produce an immune response in the body, without causing illness

Why is vaccination important?

a. Without vaccines, we are at a risk of serious illness and disability from diseases like measles, meningitis, pneumonia, tetanus, and polio. Many of these diseases can be life-threatening. WHO estimates that vaccines save between 2 and 3 million lives every year

b. Although some diseases may have become uncommon, the germs that cause them continue to circulate in some or all parts of the world. In today's world, infectious diseases can easily cross borders and infect anyone who is not protected

c. Two key reasons to get vaccinated are to protect ourselves and to protect those around us, because not everyone can be vaccinated, including very young babies and those who are seriously ill or have certain allergies - they depend on others being vaccinated to ensure they are also safe from vaccine-preventable diseases.

Types of COVID-19 Vaccines

Inactivated/ weakened virus vaccines

Inactivated or weakened form of the virus is used so that it doesn't cause the disease, but still generates an immune response

Protein-based vaccines

It uses harmless fragments of proteins or protein shells that mimic the COVID-19 virus to safely generate an immune response

Viral vector vaccines

It uses a virus that has been genetically engineered so that it can't cause disease but produce coronavirus proteins to safely generate an immune response

RNA and DNA vaccines

Genetically-engineered RNA or DNA is used to generate a protein that itself safely prompts an immune response

India's COVID-19 Vaccine Update

Start of vaccination drive

India's domestic vaccination drive is to be the largest in the world. As per the Ministry of Health, COVID-19 vaccination shall start in India by January 2021. The Government aims to vaccinate the priority groups by the end of June 2021.

First to be vaccinated

India has planned to identify and vaccinate "priority category" basis their risk exposure, which are as mentioned below:

- Healthcare workers, healthcare providers, and workers (healthcare workers, including doctors, medical students, nurses and ASHA workers) in healthcare settings such as hospitals (public as well as private)
- Frontline workers which includes personnel from state and central police, armed forces, home guards, civil defence and disaster management volunteers, and municipal workers
- Prioritized age group population above 50 years and persons below 50 years with associated co-morbidities

Note: Pre-registration is mandatory for vaccinations and on-spot registration or any influence to include any individual is not allowed/possible.

Mandatory vaccination?

No, however, it is strongly recommended that one should receive the complete schedule of COVID-19 vaccine to protect oneself against this disease and to limit the spread of this disease to close contacts including family members, friends, relatives, and co-workers.

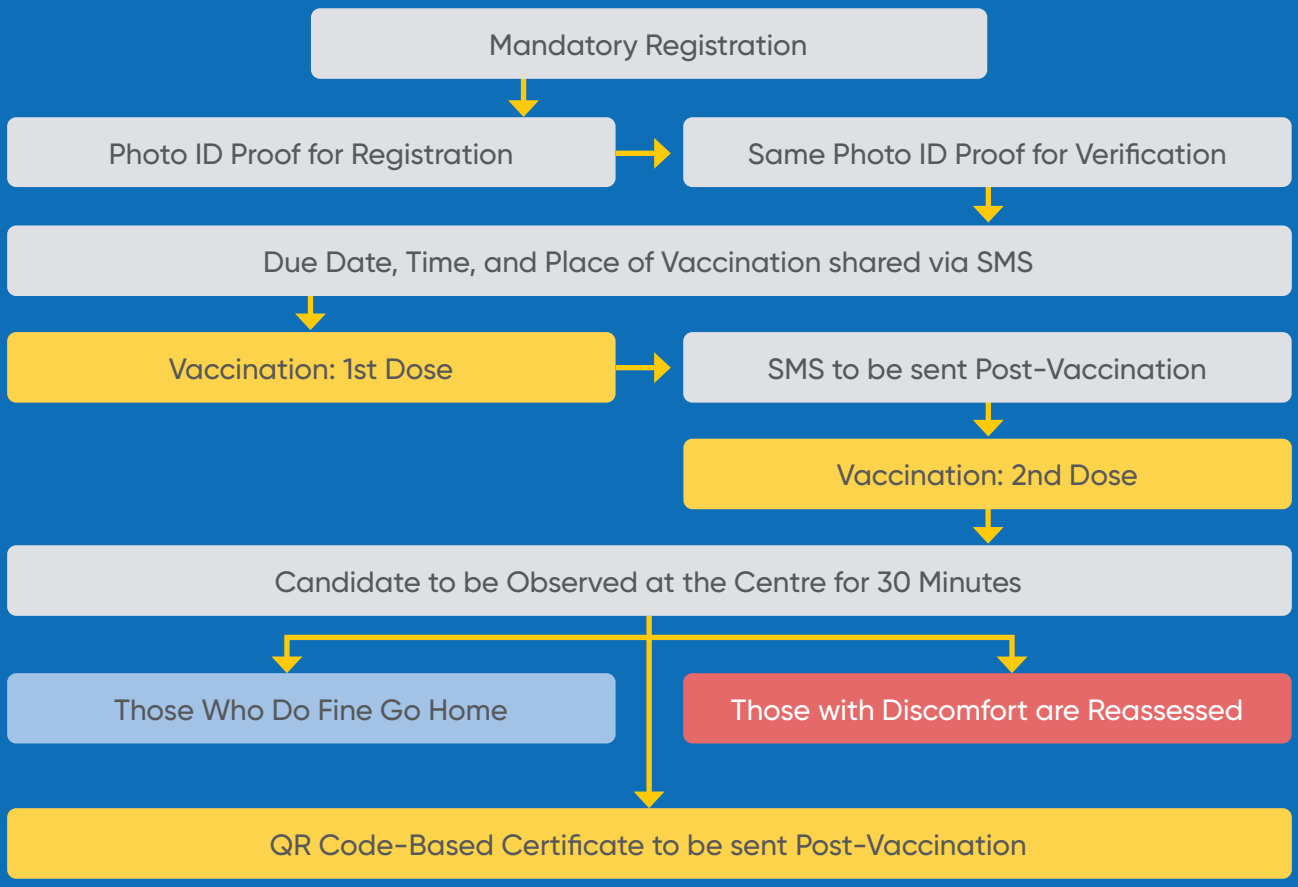
Vaccination required by those with history of COVID infection?

Yes, it can help build a strong immune response against the disease. It is also advised that the person who has an active infection should defer getting vaccinated for 14 days and get vaccinated post this period.

Recommended vaccine

The vaccines which are given licence would be available for vaccination. It is important to complete the recommended schedule with the same vaccine as vaccines are not interchangeable.

Process Flow for the Vaccination Drive



Possible Common Side Effects

As usual, in case of most vaccines, mild fever, nausea pain at the site of injection. Authorities have been asked to make necessary arrangement to deal with any Covid-19 vaccine-related side-effects as one of the measures towards safe vaccine delivery among the masses.

Post-Vaccination Behaviour

All COVID-19 safety guidelines, key COVID-appropriate behaviours like wearing mask, maintaining social distancing, hand sanitization, and best hygiene practices.

Leading Vaccine Candidates

India has approved 2 vaccines, Covishield and Covaxin, for emergency use to fight the COVID-19 pandemic. Mass vaccination has begun from mid-January. The following are the salient features of the 2 vaccines:

COVISHIELD

Developed by the Oxford University scientists in collaboration with the pharmaceutical company AstraZeneca. It is made by using adenovirus which has the same genetic material as the spike protein of SARS-CoV-2 (coronavirus). Spike protein is the part of SARS-CoV-2 using which the virus enters the body cell of an infected person. In our country the trials of Covishield were undertaken by Serum Institute of India which is also manufacturing the vaccine for mass vaccination in our country and elsewhere.

COVAXIN

It is developed by indigenous vaccine developer Bharat Biotech in collaboration with the Indian Council of Medical Research (ICMR) and the National Institute of Virology. It is being developed using dead coronavirus which is why it is called an inactivated vaccine. In inactivated form, a virus is not capable of infecting others or replicating on its own but triggers good immune response from our immune system. It is in the final stages of clinical trial and hence the Drug Controller General of India (DCGI) has given restricted approval.

Vaccines: Table of Comparison

S.N.	Specifics	Covishield	Covaxin	Novavax	Sputnik
1.	Type	Viral Vector	Inactivated Virus	Protein Subunit	Viral Vector
2.	Efficacy	60-90%	Clinical Trial results not published	Clinical Trial results not published	Up to 91.4%
3.	Dosage	2, Gap of 4-6 Weeks	2, Gap of 3 Weeks	2, Gap of 3 Weeks	2, Gap of 3 Weeks
4.	Storage Temperature	2-8 degree Celsius	Normal Room Temperature	2-8 degree Celsius	2-8 degree Celsius
5.	Order	*1 Billion	NA	*1 Billion	100M-200M

Note: The details mentioned are based on various reports published and may change when they come out in the market. All vaccines mentioned in the table are easy to store and administer.

*Order status is subject to change due to circumstances.

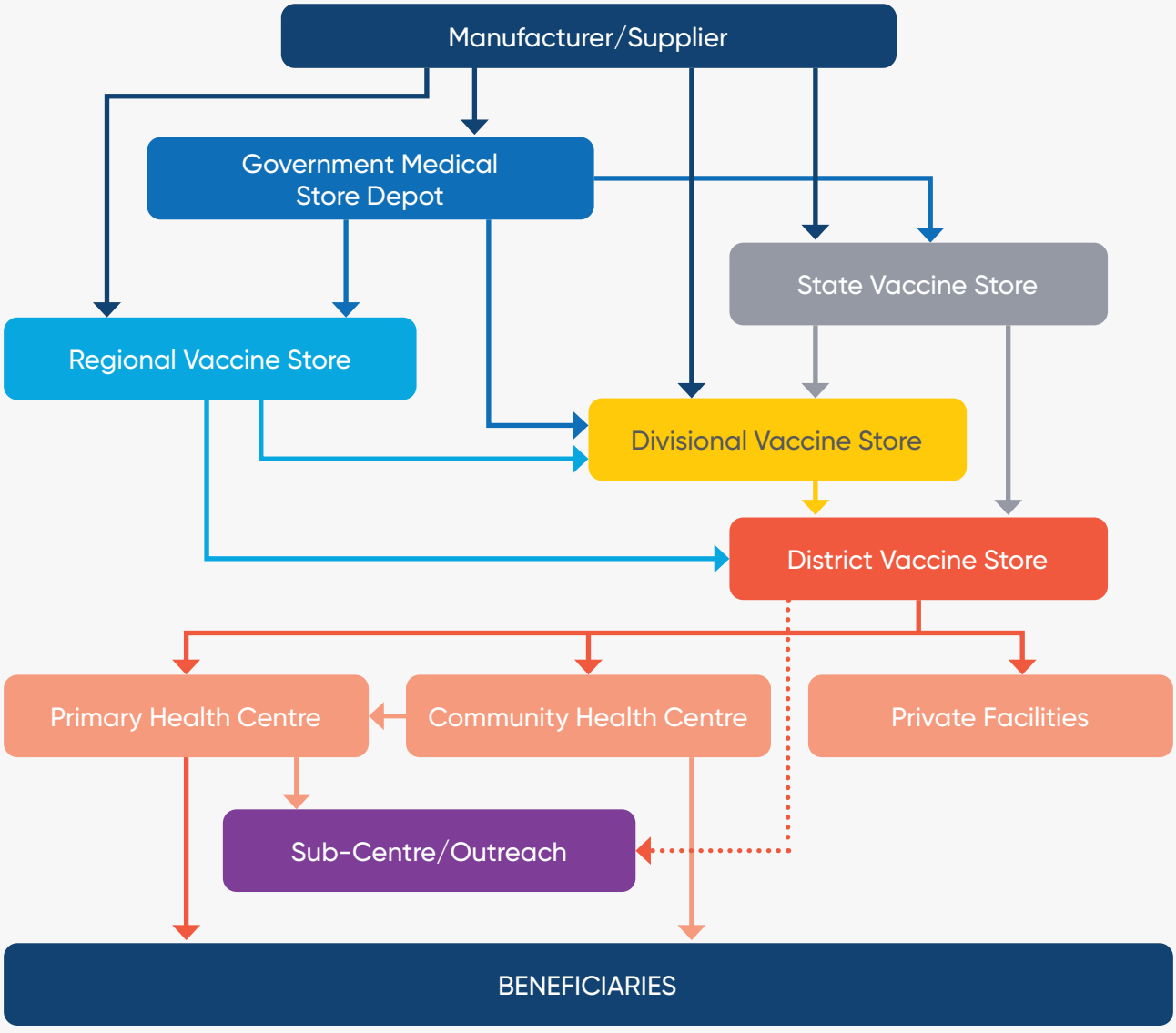
India's Vaccination Roll Out

Transportation

The Government of India has allowed all scheduled operators who have been currently authorized to carry dangerous goods to carry Coronavirus vaccines. There are guidelines issued for the packaging and transportation of the COVID-19 vaccines by air directing airlines and airport authorities to ensure the vaccines are packaged in dry ice and refrigerated material in an effort to maintain low temperatures ranging between -8° C to -70° C essential for its transportation.

Distribution

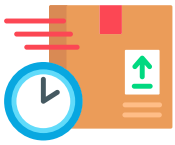
Pune is the central hub from where the Covid-19 vaccine distribution process will take place. As many as 41 destinations across the country have been finalized for delivery of vaccines. Among these destinations, there are four primary stores called the Government Medical Store Depot (GMSD) located in Mumbai, Chennai, Kolkata, and Karnal.



Types of COVID-19 Vaccines

Manufacturers

Vaccine manufacturers like Bharat Biotech, SII, and various other vaccine candidates



Distributors

Large vaccine distributors who are affiliated with the vaccine manufacturers and pharmacy supply chain specialists across India

Home Health Providers

Large healthcare providers that provide health at home

Hospitals/Diagnostic Centres

One of the most important channels due to their standards on storage, cold chain maintenance experience, vaccine administration, and post-vaccine management capability

Note: The channels may get added/deleted post GOI approvals

COVID vaccine for private purchase

One of the vaccine candidates could be available for private purchase by March 2021. The number of doses could be between 2-3 million; however, there is no confirmation on the pricing and at this time, and the GOI seems to have the final say on the distribution of vaccines.

Many corporate organizations have shown interest and have come forward to declare that they would like to sponsor COVID-19 vaccinations for their employees.

The common opinion among industry is that they support the GOI's drive to prioritize groups, and the private sector should wait until private purchase is given a go ahead.

Administration of Vaccine

(GOI regulations may alter priority/preferences and other formalities of inoculation, therefore the below-mentioned sequence of events may change).

Mode of Administration

Possible modes of vaccine administration:

ONSITE	OFFSITE	AT HOME
At office premises in the presence of a medical team (Doctor+Nurse)	In a medical set-up like a diagnostic centre or a hospital	Convenient option; emergence of tele-medicine has helped this mode emerge recently
Pros: Safer option to administer the vaccine as mild adverse reaction cases can be observed and remedial measure can be taken	**Pros:** The safest method from administration and post-vaccine adverse reaction (if any) points of view due to presence of required equipment/ personnel; has emerged as one of the preferred options in recent times	**Pros:** Convenient way as it does not ask one to travel to a diagnostic centre/ hospital; may come as a preferred option for clients extending WHF
Cons: It may increase the administrative cost as only restricted no. of employees would be allowed to get inoculated owing to safety and cautionary measures. WFH may play role in lesser participation	**Cons:** Even though the number of COVID cases has come down significantly in recent times, employees and their family members may still avoid going to hospitals/diagnostic centres	**Cons:** The least safe mode from post-vaccine adverse reaction standpoint; safe for user-friendly vaccines but may not be for employees with a history of adverse reaction post-vaccination

Our suggested roadmap

A partner should have the below-mentioned capabilities to be able to drive COVID vaccination.

Vaccine Management

- Coordination with the vaccine manufacturer
- Availability on site – cold chain management

Vaccine Administration

- Informed consent
- Patient education & communication
- Preparation of vaccine
- Administration

Post-Vaccination Monitoring & Management

- Post-vaccination monitoring of vitals and adverse reaction
- Adverse reaction management if any, with a doctor available to consult.
- Disposal of sharps/empty syringe, vial

Communication & Documentation Management:

- Managing the communication and ensuring the 2nd dose administration
- Communication and information sharing with authorities in line with the GOI instructions

Precautions and Contraindications for COVID-19 Vaccination

Authorised age group:

COVID-19 vaccination is indicated only for 18 years and above

Co-administration of vaccines:

If required, COVID-19 vaccine and other vaccines should be separated by an interval of at least 14 days

Interchangeability of COVID-19 vaccines:

It is not permitted. The second dose should also be of the same COVID-19 vaccine which was administered as the first dose

Contraindications

Persons with a history of

a. Anaphylactic or allergic reaction to a previous dose of COVID-19 vaccine
b. Immediate or delayed-onset anaphylaxis or allergic reaction to vaccines or injectable therapies, pharmaceutical products, food items, etc.

Pregnancy and lactation

Pregnant and lactating women have not been part of any COVID-19 clinic trial so far and therefore, women who are pregnant, not sure of their pregnancy and lactating women should not receive COVID-19 vaccination this time.

Provisional/Temporary Contraindications: Persons with below mentioned conditions, COVID-19 vaccination need to be deferred for 4-8 weeks after recovery:

a. Persons having active infection of COVID-19.
b. COVID-19 patients who have been given monoclonal antibodies and convalescent plasma.
c. Acutely unwell and hospitalized (with/without ICU care) patients due to illness.

Special Precautions

Vaccine should be administered with caution to persons with history of any bleeding or coagulation disorder (e.g. clotting factor deficiency, coagulopathy, and platelet disorder).

The following conditions are not contraindicated for COVID-19 vaccinations:

a. Persons with a past history of COVID-19 infection and/or RT-PCR positive illness
b. History of chronic diseases and morbidities (cardiac, neurological and pulmonary, metabolic, renal, malignancies)
c. Immuno-deficiency, HIV, patients on immune-suppression due to any condition (the response to COVID-19 vaccines may be less in these individuals)

Note: The above-mentioned information is as on date and vaccine-specific contraindications may apply as and when new information is made available.

Commercials and Timelines

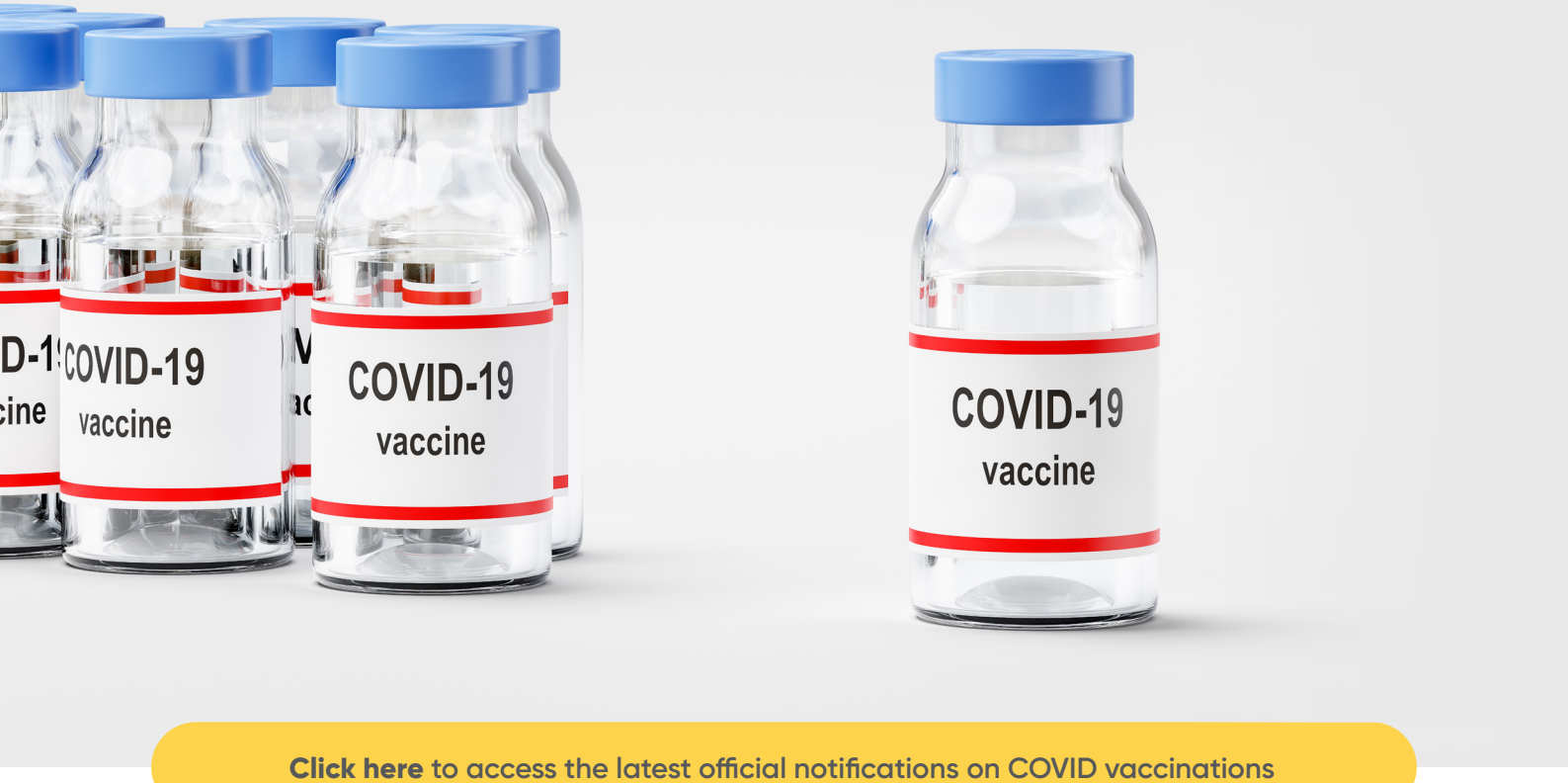
There are no confirmations on the timelines as to when the vaccines will be available for commercial purchase/usage. It is expected to be clear in the coming months, especially after the first phase of the vaccination drive for the targeted groups is completed.

There are several sources who are involved in planning of COVID vaccination and have indicated that the proposed price of the vaccines could be in the range of INR 2,000+ taxes inclusive of both the doses. The vaccines administration cost could come separately and may depend upon several factors.

There is a possibility of an increase in the number of vaccine candidates available for private purchase in the second half of the year which could provide some comfort as far as commercials are concerned.

The estimated lag time for the availability of the vaccine from the date of purchase order is 30-60 days at present and subject to change, depending upon supply chain and availability of vaccine candidates.

Vaccine purchase can be facilitated through our vendor partners who are requesting pre-registrations (informally) to arrange the stocks basis requirements and make them available on a first come, first served basis.



Click here to access the latest official notifications on COVID vaccinations

Disclaimer: All information about the COVID-19 vaccine has been collated through secondary research and is accurate on the date this document was prepared.

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