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THE HINDU

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81 cr. people to get free foodgrains for one year

Those covered under National Food Security Act will benefit; Centre to bear the entire expenses estimated at ₹2 lakh crore; Food Minister terms it 'another remarkable decision of government'

The Hindu Bureau
NEW DELHI

The Union Cabinet on Friday decided to provide free foodgrains to all 81 crore beneficiaries covered under the National Food Security Act (NFSA) for one year.

The beneficiary families which used to pay ₹1 for coarse cereals, ₹2 for wheat and ₹3 for rice per kilogram will now get 35 kg of foodgrains a month free of cost for the next one year, and others will get five kilogram free each month till December 2023. The Centre has estimated an additional amount of ₹2 lakh crore for the scheme.

Relief basket: At present, NFSA beneficiaries pay ₹2 for wheat and ₹3 for rice per kilogram. SUSHIL KUMAR VERMA

'Pro-poor stand'

Speaking after the Cabinet meeting, Union Food Minister Piyush Goyal said the move was yet another reflection of Prime Minister Narendra Modi's pro-poor stand. He said that for 28 months, the Prime Minister Garib Kalyan Anna Yojana (PMGKAY) ensured five kg of foodgrains for free for the poor. "This is another remarkable decision of the government. The Prime Minister has taken a decision to provide free foodgrains for 81.35 crore people who are covered under the NFSA," Mr. Goyal said, adding that the entire expenses of the scheme would be borne by the Centre.

Mr. Goyal said though the economic situation after the pandemic was normal, a decision was taken to extend the benefits of the Antyodaya Anna Yojana, PMGKAY and the NFSA to more people by merging them. The PMGKAY, launched during the lockdown in April 2020, was scheduled to end on December 31, 2022.

The Centre has been maintaining that the country has adequate storage of foodgrains to meet the welfare schemes. The Opposition has also been urging the Centre to provide foodgrains for needy people considering the economic situation, inflation and unemployment. The ruling BJP had used the schemes as a point for political campaign in the recently held Assembly elections too.

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81 cr. people to get free foodgrains for one year

National Food Security Act, 2013 (NFSA)

The National Food Security Act (NFSA) 2013, which was passed on July 5, 2013, represents a paradigm shift in the aspect of food security, moving away from a welfare-based approach to one based on rights.

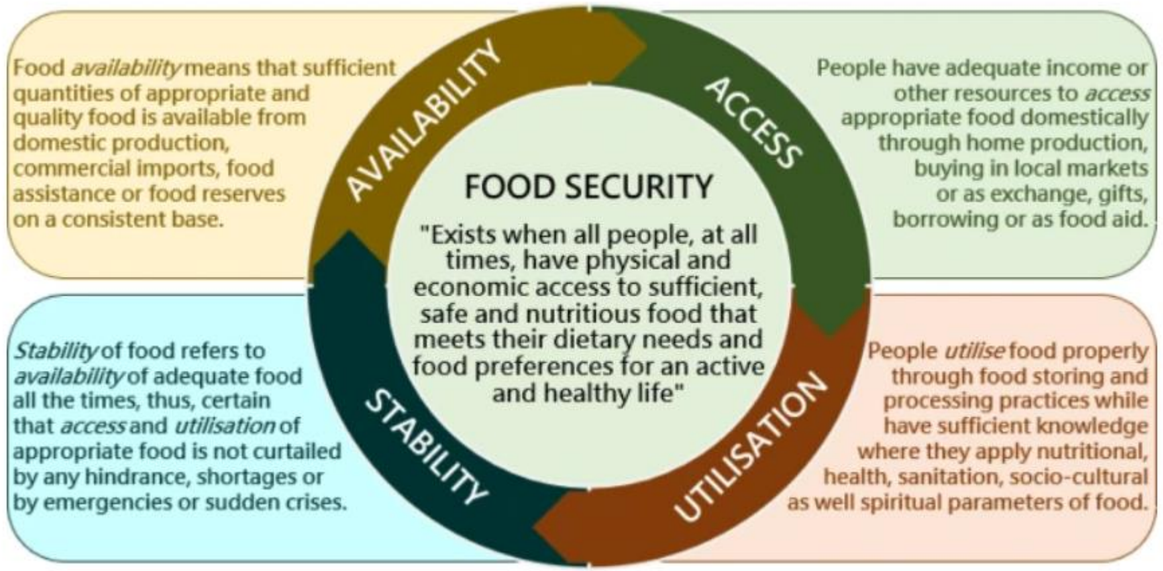
Objectives

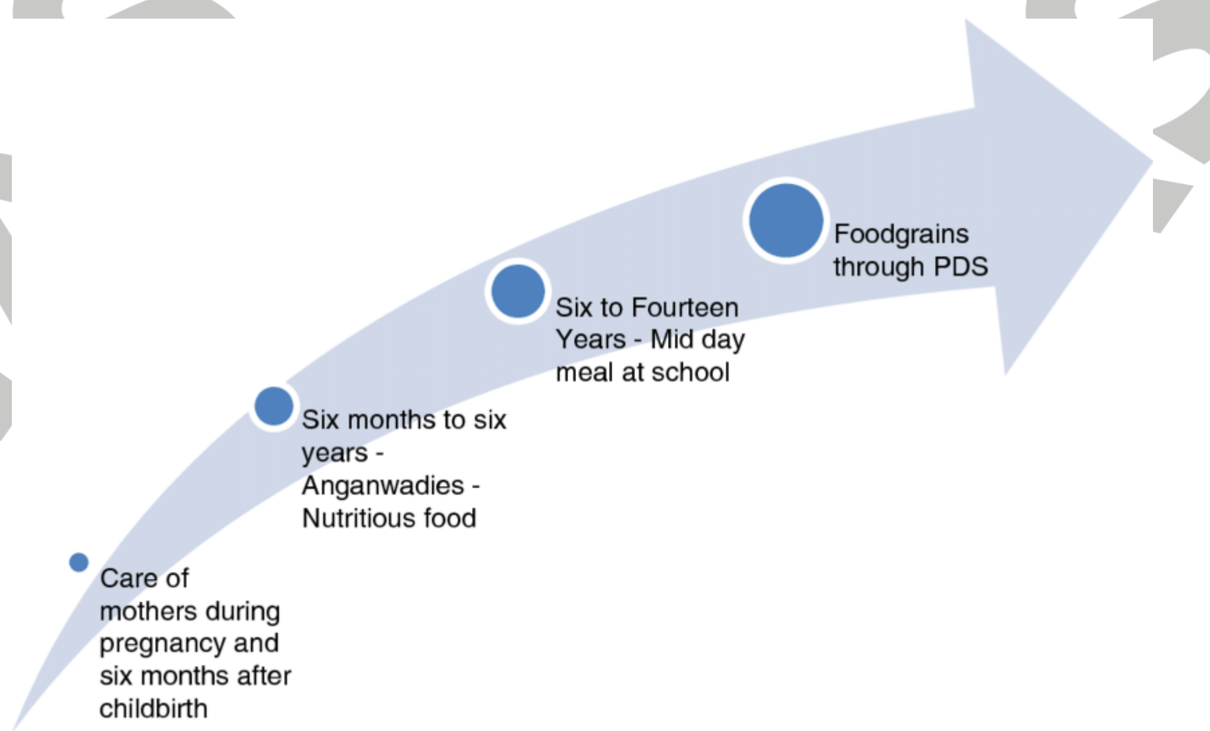
- The Act provides for food and nutritional security in the human life cycle approach, by ensuring access to an adequate quantity of quality food at affordable prices for people to live a life with dignity and for matters connected therewith or incidental thereto.

Features of the NFSA

- Coverage:
  - The state-wise coverage was determined by the NITI Aayog based on the 2011-12 Household Consumption Expenditure survey of NSSO.
  - The Act legally entitled up to 75% of the rural population and 50% of the urban population to receive subsidized foodgrains under the Targeted Public Distribution System (TPDS).
  - About two-thirds of the population, therefore, is covered under the Act to receive highly subsidized foodgrains.
- Entitlements:
  - The food grains would be provided at highly subsidized prices under the Public Distribution System.
  - The Act ensures nutritional support to women and children. Pregnant and lactating women would be entitled to nutritious meals, free of charge under the MDM and ICDS schemes.
  - Children in the age group of 6-14 years would also be entitled to free nutritious meals under the MDM and ICDS schemes.
  - Maternity benefit of not less than Rs.6000 is also provided to pregnant women and lactating mothers.
  - The Act also empowers women by identifying the eldest woman of the household as the head of the household to issue ration cards.
- The Central Government aids the States to meet the expenditure incurred by them on transportation of foodgrains within the State and also handles the Fair Price Shop (FPS) dealers' margins according to the norms.
- There is a provision of a food security allowance to the beneficiaries in the event of non-supply of food grains.
- Transparency:
  - Provisions have been made to disclose the records related to the PDS to ensure transparency.

National Food Security Act, 2013 (NFSA)





Significance

- The concept of food security at a global level indicates access to basic, nutritious food by all people, at all times. It is characterized by the availability, access, utilization, and stability of food.
- There is no explicit provision in the Indian Constitution for the right to food.
- Until the enactment of the NFSA, the fundamental right to life under Article 21 was interpreted to include the right to live with human dignity, which may include the right to food and other basic necessities.

National Food Security Act, 2013 (NFSA)

Criticisms

- **Lack of Transparency:**
  - According to a Comptroller and Auditor General (CAG) audit conducted in 2016, the wrong people were benefiting from the NFSA.
  - It accuses many states of implementing the NFSA despite owning the information that their beneficiaries list is spurious.
- **Leakages in PDS:**
  - A leakage indicates that the food grains do not reach the intended beneficiaries. The leakages may be of three types:
    - pilferage during transportation of food grains
    - diversion at fair price shops to non-beneficiaries
    - exclusion of entitled beneficiaries from the list.
- **Storage:**
  - According to the CAG audit, the available storage space was inadequate for the allocated quantity of food grains.
- **Quality of food grains:**
  - People often complain that the quality of the food grains is not up to the mark and that the grains sometimes have to be mixed with other grains to be edible. Complaints stating that the grains also consist of non-food particles such as pebbles have also been registered.
- A critical point in the debate over **NFSA is that it doesn’t guarantee a universal right to food**

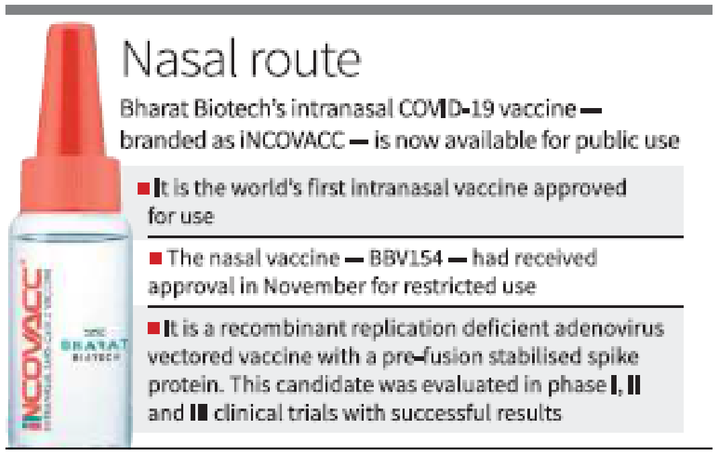
Bharat Biotech's nasal COVID vaccine available as booster

Jacob Koshy
NEW DELHI

With the threat of COVID-19 resurfacing and India ramping up health surveillance measures, Health Minister Mansukh Mandaviya said on Friday that a vaccine, which could be administered as nasal drops, would henceforth be available for public use.

"We have made available a nasal vaccine, developed by Bharat Biotech, that can be used as a precaution (booster) dose. So, whether you have been administered Covaxin or Covishield or any other vaccine, the nasal shot can work," the Minister said at a public event.

A spokesperson for Bharat Biotech told *The Hindu* that appointments for the nasal vaccine would be available via the CoWIN website.



Approved last month

iNCOVACC, co-developed by Hyderabad-based Bharat Biotech and the U.S.-based Washington University, was approved in November for 'restricted emergency use' for those aged 18 or older.

The nasal vaccine is approved both as a primary dose and a heterologous booster.

It was approved as a primary dose after Phase-3 trials, and was separately tested for safety and immunogenicity as a booster, according to a company statement.

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Bharat Biotech's nasal COVID vaccine available as booster

Basics

Immunity:

- Protection from an infectious disease. If you are immune to a disease, you can be exposed to it without becoming infected.
  - **Active Immunity**
    - Active Immunity results when exposure to a disease organism triggers the immune system to produce antibodies to that disease. Active immunity can be acquired through natural immunity or vaccine-induced immunity.
      - **Natural immunity** is acquired from exposure to the disease organism through infection with the actual disease.
      - **Vaccine-induced immunity** is acquired through the introduction of a killed or weakened form of the disease organism through vaccination.
    - Either way, if an immune person comes into contact with that disease in the future, their immune system will recognize it and immediately produce the antibodies needed to fight it. Active immunity is long-lasting, and sometimes life-long.
  - **Passive Immunity**
    - Passive immunity is provided when a person is given antibodies to a disease rather than producing them through his or her own immune system.
    - Pregnant woman wearing protective face mask in blooming park
    - A newborn baby acquires passive immunity from its mother through the placenta.
    - People can also get passive immunity through antibody-containing blood products such as immune globulin, which may be given when immediate protection from a specific disease is needed.
    - The major advantage to passive immunity is that protection is immediate, whereas active immunity takes time (usually several weeks) to develop. However, passive immunity lasts only for a few weeks or months

Vaccine:

- A preparation that is used to stimulate the body’s immune response against diseases. Vaccines are usually administered through needle injections, but some can be administered by mouth or sprayed into the nose.

What's in Vaccines?

- Every vaccine ingredient serves a purpose
  - **To provide immunity**
    - We become immune to (or protected from) a disease when our bodies create specific antibodies to fight that disease. Vaccines contain ingredients that help your body build this immunity.
  - **To keep the vaccine safe and long-lasting**
    - Vaccines need to be safe and effective. Certain ingredients help keep vaccines safe from contamination and toxins. Others, like stabilizers, help vaccines stay effective for a long time.
  - **To make the vaccine more effective**
    - All vaccine ingredients help to make a vaccine as effective as possible, while being safe. Ingredients like aluminum salt help boost the body's response to the vaccine.

Stabilizers

Purpose: To keep the vaccine effective after manufacturing

Most commonly found in: Jell-O®, naturally in the body

Examples: Sugars, gelatin

Adjuvants

Purpose: To help boost the body's response to the vaccine

Most commonly found in: Drinking water, infant formula, and some health products such as antacids, buffered aspirin, and antiperspirants

Examples: Aluminum salts

Residual antibiotics

Purpose: To prevent contamination by bacteria during the vaccine manufacturing process

Most commonly found in: Common antibiotics. Antibiotics that people are most likely to be allergic to—like penicillin—aren't used in vaccines.

Examples: Neomycin, Kanamycin, Streptomycin

Preservatives

Purpose: To prevent contamination

Most commonly found in: Some kinds of fish

Example: Thimerosal (only in multi-dose vials of flu vaccine)*

Residual inactivating ingredients

Purpose: To kill viruses or inactivate toxins during the manufacturing process

Most commonly found in: Naturally in the human body, fruit, household furnishings (carpets, upholstering)

Example: Formaldehyde†

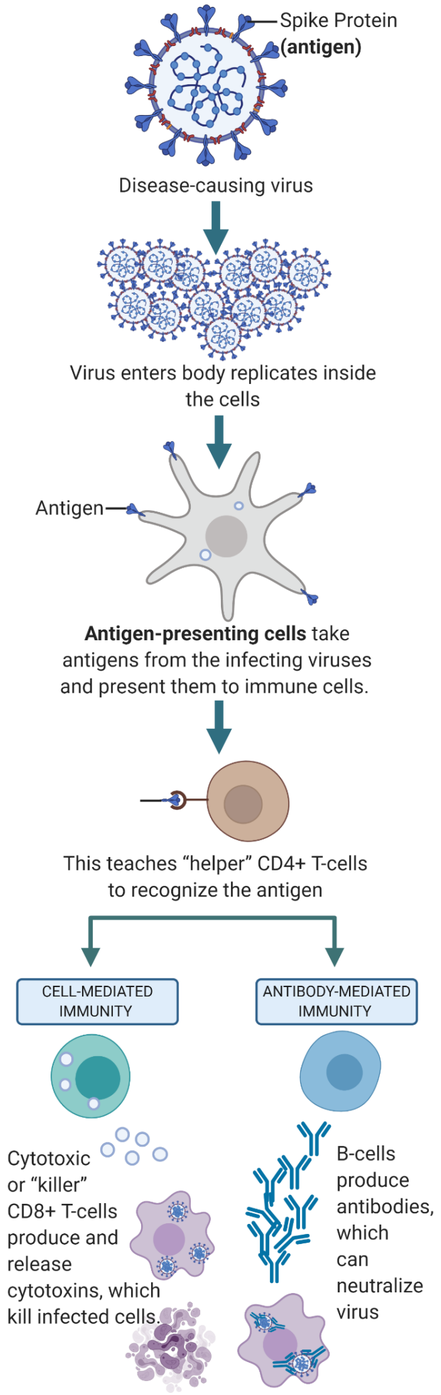
Residual cell culture materials

Purpose: To grow enough of the virus or bacteria to make the vaccine

Most commonly found in: Eggs, and foods that contain eggs

Examples: Egg protein^

IMMUNE RESPONSE



Antibody - Y-shaped protein produced mainly by immune cells that is used by the immune system to neutralize pathogens such as virus and bacteria.

Antigen - A toxin or other foreign substance which induces an immune response in the body, especially the production of antibodies.

Antigen presenting cells - Large group of various cells that trigger the cellular immune response by processing an antigen and exposing it in a form recognizable by T cells in the process known as antigen presentation.

B cell- Is a type of immune cell that produces antibodies to enable antibody mediated immune response.

Booster dose - It is an extra administration of a vaccine after an earlier (prime) dose and intended to increase immunity against that antigen back to protective levels, after memory against that antigen has declined through time.

Cytotoxic or Killer CD4-T cell - Is an immune cell that kill cells that are infected (particularly with viruses), or cells that are damaged in other ways.

DNA Plasmid - A small, extrachromosomal DNA molecule within a cell that is physically separated from chromosomal DNA and can replicate independently. Plasmids used experimentally for the purpose of research are called vectors

Genome - Complete set of genetic information in an organism.

Helper CD4 T-Cells - A type of immune cell that stimulates killer T cells, macrophages, and B cells to make immune responses.

Immune system - Complex network of cells and proteins that defends the body against infection.

Messenger RNA or mRNA - Molecules in the cell that carries codes from DNA in the nucleus to the cell machinery responsible for protien synthesis (cytoplasm) within a cell.

Pathogens - Microorganisms that cause a disease eg bacteria, virus.

Peptides - A short chain of amino acids (basic units of protein)

Tolerance to the Antigen - Tolerance is the prevention of an immune response against a particular antigen.

Viral Vectors - Tailored virus for the delivery of the infective viral gene.

Weakened virus - Retained Immunogenicity (ability of an antigen, to provoke an immune response in the body) but no pathogenicity (the property of causing disease).

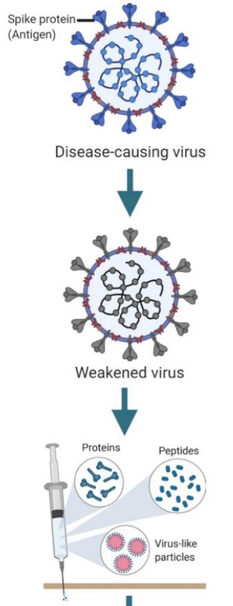
TYPES OF VACCINES

Live Attenuated Vaccine

These vaccines contain **live virus** particles that have been **weakened** to keep them from causing disease.

They create a strong immune response

Some attenuated vaccines might not be suitable for people with compromised immune systems



Antigen is presented to the immune cells on **Antigen Presenting Cells**

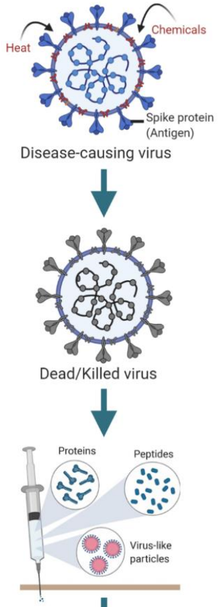
Immune Response and Memory

Inactivated Vaccine

These vaccines contain **whole virus particles**, that have been **killed or inactivated** to keep them from causing disease.

They are safer as the virus is already dead

Inactivated vaccines require booster doses as the immunity conferred by these vaccines is weaker than live vaccines



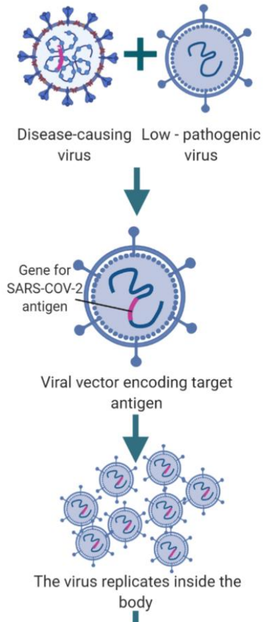
Antigen is presented to the immune cells on **Antigen Presenting Cells**

Immune Response and Memory

Replicating Viral Vector Vaccine

These vaccines use **low-pathogenic viruses**, which are largely harmless, and alter them into **viral vectors** that will produce some of the same proteins as the disease-causing virus.

This creates a **strong immune response**, but may not work for people who are already immune to the low pathogenic virus.



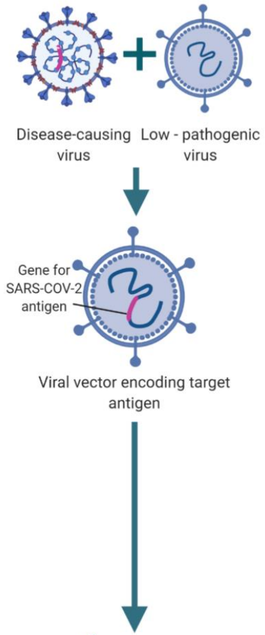
Antigen is presented to the immune cells on **Antigen Presenting Cells**

Immune Response and Memory

Non-Replicating Viral Vector Vaccine

These vaccines are **similar** to **replicating viral vector** vaccines except that they **cannot replicate** inside the body as the key viral replication genes is deleted from the low pathogenic vector virus.

Improved **efficacy and safety,** but require high doses to confer immunity.



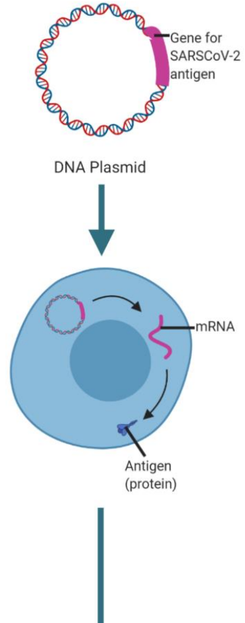
Antigen is presented to the immune cells on **Antigen Presenting Cells**

Immune Response and Memory

DNA Vaccine

These vaccines use **DNA plasmids** containing a **gene for SARSCoV-2** along with additional genetic elements that will produce some of the same **antigenic proteins** as the disease-causing virus.

They are easy to develop and produce. There is no risk of infection but there is a possibility that the immune system does not fight against the antigen (tolerance to the antigen).



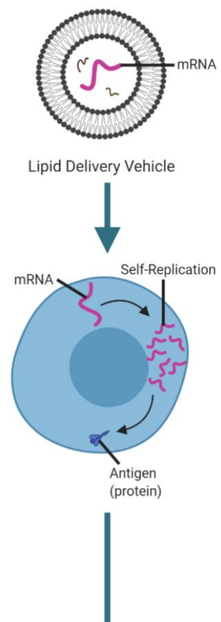
Antigen is presented to the immune cells on **Antigen Presenting Cells**

Immune Response and Memory

RNA Vaccine

These vaccines use a piece of **messenger RNA (mRNA)** that will produce some of the same **antigenic proteins** as the disease-causing virus.

Risk of being integrated to the host genome is averted but, sometimes the RNA molecules may trigger an unintended immune response in the body



Antigen is presented to the immune cells on **Antigen Presenting Cells**

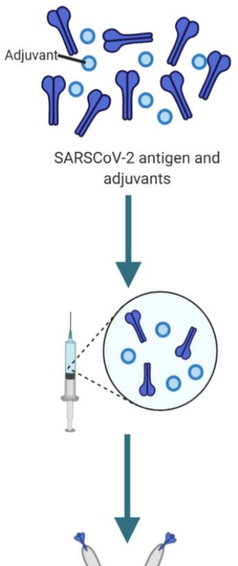
Immune Response and Memory

Subunit Vaccine

These vaccines use **antigenic protein** from the disease causing virus **without** any **genetic material**.

They are relatively safer as there is no genetic material and they cannot replicate inside the body. They focus the immune response on the most important part of the virus for protection.

These vaccines require multiple doses for long term immunity. They require adjuvants which are ingredients that help create a stronger immune response.

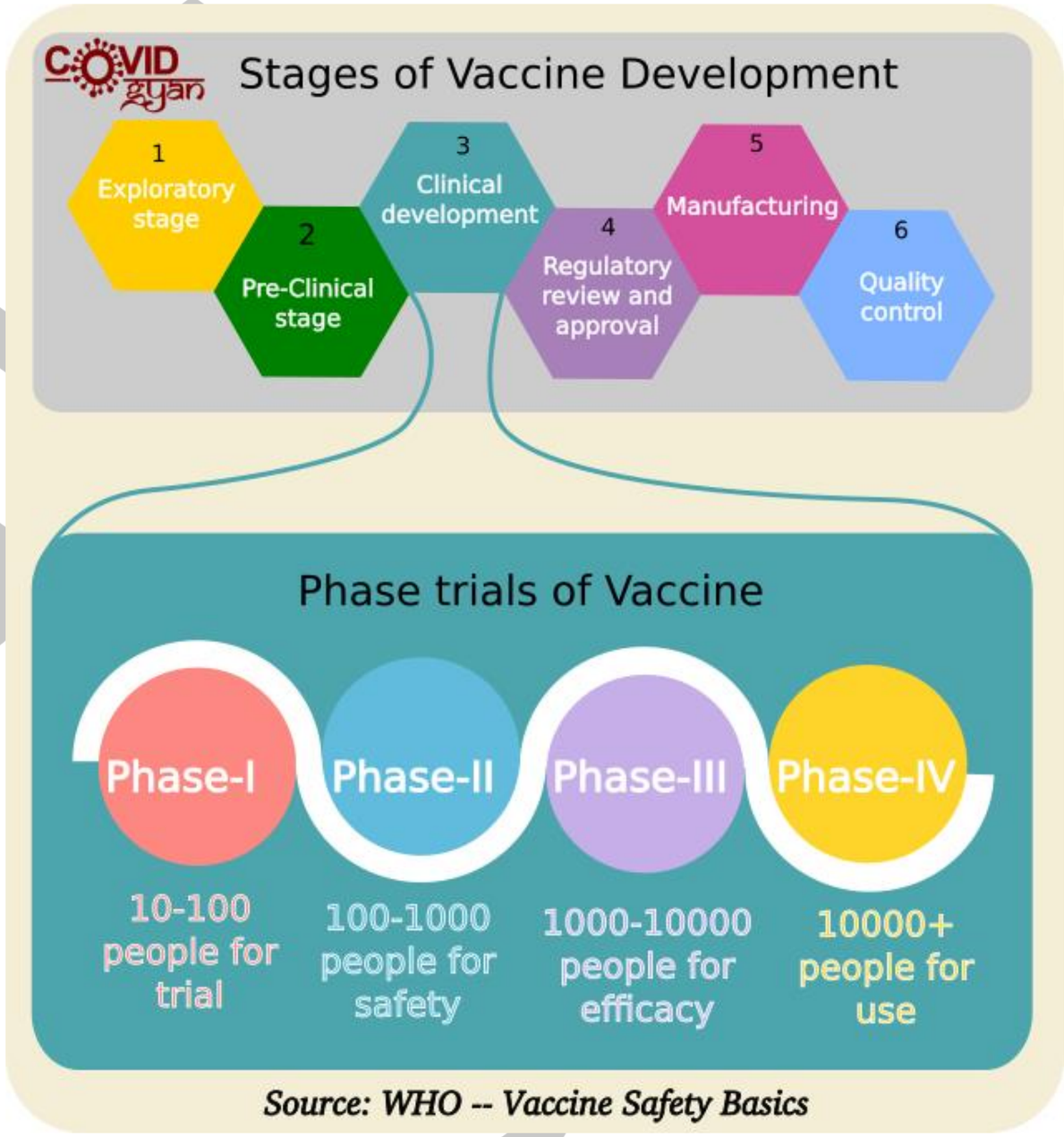


Antigen is presented to the immune cells on **Antigen Presenting Cells**

Immune Response and Memory

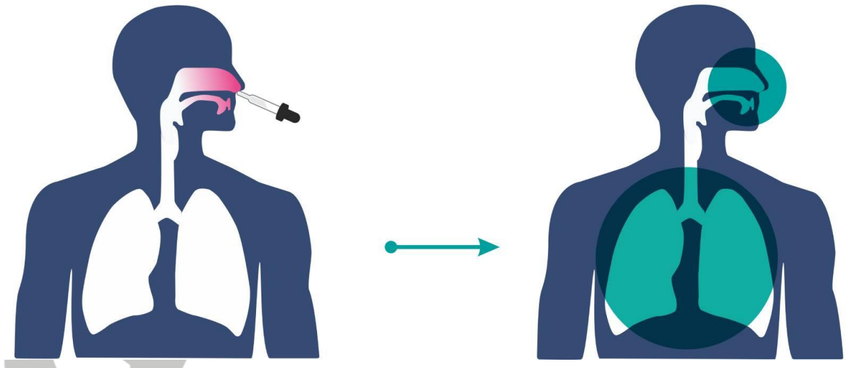
Subunit, recombinant, polysaccharide, and conjugate vaccines use specific pieces of the germ—like its protein, sugar, or capsid (a casing around the germ).

How are vaccines developed?

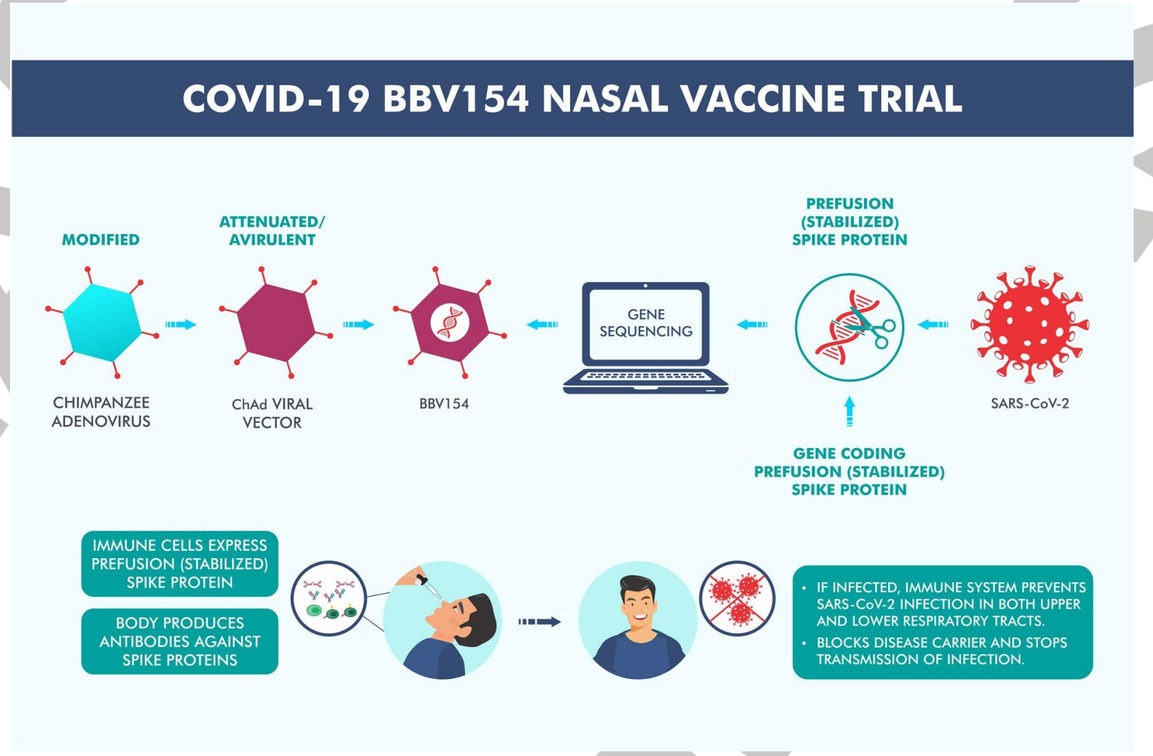


iNCOVACC

Intranasal SARS-CoV-2 Vaccines



- Likely to prevent infection and transmission
- Likely to prevent disease



Basics

- An intranasal vaccine stimulates a broad immune response – neutralizing IgG, mucosal IgA, and T cell responses.
- Immune responses at the site of infection (in the nasal mucosa) – essential for blocking both infection and transmission of COVID-19.
- The nasal route has excellent potential for vaccination due to the organized immune systems of the nasal mucosa.
- Non-invasive, Needle-free.
- Ease of administration – does not require trained health care workers.
- Elimination of needle-associated risks (injuries and infections).

"These mucosal vaccines target thin mucous membranes that line the nose, mouth and lungs. By prompting immune responses where SARS-CoV-2 first enters the body, mucosal vaccines could, in theory, prevent even mild cases of illness and block transmission to other people-something Covid- 19 shots have been unable to do. Vaccines that produce sterilizing immunity would be game changing for the pandemic."

Cabinet approves pending OROP revision for veterans

The pension revision for personnel has been delayed since July 2019; according to the Defence Ministry more than 25.13 lakh persons, including 4.52 lakh new beneficiaries, stand to gain

The Hindu Bureau
NEW DELHI

The Union Cabinet on Friday approved a pension revision for retirees from the armed forces and their families under the One Rank One Pension (OROP) scheme, which has been delayed since July 2019. Arrears will be paid from July 01, 2019, to June 30, 2022, which is approximately ₹23,638 crore as per the applicable dearness relief, the Defence Ministry said.

"Pension of the past pensioners would be refixed on the basis of average of minimum and maximum pension of defence forces retirees of calendar year 2018 in the same rank with the same length of service," a Defence Ministry statement said.

More than 25.13 lakh people, including over 4.52 lakh new beneficiaries, armed forces pensioners and family pensioners will benefit, it said.

Long stir: Members of Ex-Central Paramilitary Forces Welfare Association staging a protest in New Delhi in February. FILE PHOTO

Armed forces personnel with a retirement date up to June 30, 2019, excluding premature retirees with effect from July 1, 2014, will be covered under this revision, the Ministry said.

Legal route

Against the backdrop of delays, veterans had taken the legal route to pursue the revision. The case has been repeatedly delayed with the Government asking for more time in the Supreme Court.

One Rank One Pension implies uniform pension to personnel based on rank and length of service, and irrespective of the date of retirement.

Pension for those drawing above the average shall be protected and the benefit would also be extended to family pensioners, including war widows and disabled pensioners, the Ministry said.

Arrears will be paid in four half-yearly instalments. However, all the family pensioners, including those in receipt of special, liberalised family pensions, and gallantry award winners, shall be paid arrears in one instalment.

Annual expenditure

The estimated annual expenditure for the implementation of the revision has been calculated as approximately ₹8,450 crore based on 31% Dearness Relief (DR).

Arrears from July 1, 2019, to December 31, 2021, have been calculated as over ₹19,316 crore based on DR at 17% for the period from July 1, 2019, to June 30, 2021, and at 31% for the period from July 1, 2021, to December 31, 2021. This expenditure is over and above the ongoing expenditure on account of OROP, the statement added.

03

Cabinet approves pending OROP revision for veterans

One Rank One Pension

OROP means the payment of the same pension to military officers for the same rank for the same length of service, irrespective of the date of retirement.

- Before OROP, ex-servicemen used to get pensions as per the Pay Commission's recommendations of the time when they had retired.
- Uttar Pradesh and Punjab have the highest number of OROP beneficiaries.
- Armed Forces Personnel who had retired till 30th june 2014 are covered under it.
- The implementation of the scheme was based on recommendation of the Koshiyari committee, a 10 member all-party parliamentary panel formed under the chairmanship of Bhagat Singh Koshiyari.
- To explain this system, let us take an example. An officer who has been in service for 15 years (from 1985 to 2000), and retired in 2000 would get the same pension as an officer who retired in 2010 and was in service from 1995 to 2010 (15 years).

Before this system

- The prevailing system for calculating the personnel’s pension was based on the last salary drawn.
- Here, the length of the service did not matter and what was taken into consideration was the last salary received by the personnel.
- The problem here was that a lieutenant general who retired in 1995 would be receiving a pension that is almost 10% lower than a colonel who retired after 2006, even if they had the same length of service.
- To take another example, a jawan who retired in 1995 would get almost 80% less pension than his counterpart who retired after 2006.
- The demand for OROP by ex-servicemen was to get rid of this disparity in pensions.

QUIZ OF THE DAY

Q1. Consider the following statements regarding Human Genome Project:
1. It began in 1990 and ended in 2003.
2. It helped in decoding the entire human genome.
3. India was a founding member of it.
Which of statement/s given above is/are correct?
A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Q2. Consider the following statement about National Pension Scheme.
1. The scheme is applicable to all new recruits joining the Central Government service (Including armed forces) from April 1, 2004.
2. It is a participatory scheme, where employees contribute to their pension corpus from their salaries, with matching contribution from the government.
3. The Pension Fund Regulatory and Development Authority (PFRDA) is the regulator for NPS.
4. Private individuals cannot opt for the scheme.
Which of the above statements is /are correct?
a) 1 and 2
b) 2 and 4
c) 1,2 and 4
d) 2 and 3

Shield IAS