



Pneumococcal Conjugate Vaccine

Why in News

Recently, the **Chief Minister of Andhra Pradesh** has launched **Pneumococcal Conjugate Vaccine (PCV) immunisation** drive for infants.

- Earlier in December 2020, **India's first fully indigenously developed pneumococcal conjugate vaccine** "[Pneumosil](#)" was launched.

Key Points

▪ About:

- It prevents **pneumococcal disease**. It can **protect both children and adults from pneumococcal disease**.
- The vaccine is a **mix of several bacteria of the pneumococci family**, which are known to **cause pneumonia**—hence '**conjugate**' is included in the name of the vaccine.

- [Conjugate vaccines](#) are made using a combination of two different components.

▪ Pneumococcal disease:

◦ About:

- Pneumococcal disease is a name for any infection caused by bacteria called ***Streptococcus pneumoniae or pneumococcus***. Most people carry pneumococcus in their nose and throat, where the bacteria do not cause any symptoms.
- However, **sometimes the bacteria grow and spread to other parts of the body** and that's when people become sick.

◦ Effects:

- These bacteria can cause many types of illnesses, including [pneumonia](#), which is an **infection of the lungs**. Pneumococcal bacteria are one of the **most common causes of pneumonia**.
- Besides pneumonia, **pneumococcal bacteria can also cause:**

- **Ear** infections.
- **Sinus** infections.
- **Meningitis** (infection of the tissue covering the brain and spinal cord).
- **Bacteremia** (infection of the blood).

- Doctors consider some of these infections "invasive". Invasive disease means that **germs invade parts of the body that are normally free from germ**.

◦ Vulnerable Population:

- Anyone can get **pneumococcal disease**, but **children under 2 years of age**, people with certain medical conditions, **adults 65 years or older**, and **cigarette smokers are at the highest risk**.

▪ **Need:**

- Pneumonia had been a major cause of **infant and child mortality**. According to the [World Health Organisation \(WHO\)](#), pneumonia accounts for 15% of all deaths of children under 5 years.
- It was estimated that the **disease affected around 16 lakh children and caused the death of nearly 68,700 children** across the country in the year 2015.
 - The government of India is ensuring **equitable access to those to the underprivileged and underserved** by making it available under the [Universal Immunization Program \(UIP\)](#).
- [Sustainable Development Goal 3](#) calls for an end to **preventable deaths of newborns and children under 5 years of age**. It also specifies that **all countries should aim to reduce neonatal mortality** to at least as low as 12 deaths per 1,000 live births and under-five mortality to at least as low as 25 deaths per 1,000 live births by 2030.
 - **Neonatal mortality** is defined as death within the **first 28 days of life**.

Universal Immunization Programme

- It was launched in 1985 to **prevent mortality and morbidity in children and pregnant women** against 12 vaccine-preventable diseases.
- Under UIP, **free of cost vaccination is provided against twelve vaccine-preventable diseases** i.e. [Tuberculosis](#), [Diphtheria](#), Pertussis, Tetanus, [Polio](#), [Hepatitis B](#), Pneumonia and Meningitis due to Haemophilus Influenzae type b (Hib), [Measles](#), Rubella, [Japanese Encephalitis \(JE\)](#) and [Rotavirus diarrhoea](#).
- The programme is one of the **largest health programmes in the world**. Despite being operational for many years, UIP has been able to **fully immunize only 65% of children under 1 year of age**.

[Source: TH](#)

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