Decline in Immunisation Coverage

For Prelims: United Nations Children's Fund (UNICEF), Diphtheria, Tetanus, and Pertussis (DPT) Intensified Mission Indradhanush

For Mains: Diphtheria, Tetanus, and Pertussis (DPT), Intensified Mission Indradhanush

Why in News?

Recently, a report by **World Health Organisation (WHO)** and **United Nations Children's Fund (UNICEF)** highlighted the impact of **covid-19 pandemic** on immunisation programs globally and in India as well.

- DPT vaccine is considered a marker for immunization coverage across countries.

What is Diphtheria, Tetanus, and Pertussis (DPT)?

- **Diphtheria:**
  - **Caused by:**
    - Diphtheria is primarily caused by the **bacterium Corynebacterium diphtheriae.**
  - **Symptoms:**
    - Common cold, fever, chills, swollen gland in neck, sore throat, bluish skin etc.
  - **Spread:**
    - It is mainly spread by coughs and sneezes, or through close contact with someone infected.
  - **Target Population:**
    - Diphtheria particularly affects children **aged 1 to 5 years.**
    - Occurrence of diphtheria cases in under-five children reflects **low coverage** of primary diphtheria vaccination.
- **Tetanus:**
  - **Caused by:**
    - Tetanus is acquired through infection of a cut or wound with the spores of the bacterium Clostridium tetani, and most cases occur within 14 days of infection. Tetanus cannot be transmitted from person to person.
  - **Prevention:**
    - Tetanus can be prevented through immunization with Tetanus-Toxoid-Containing Vaccines (TTCV). However, people who recover from tetanus do not have natural immunity and can be infected again.
  - **Symptoms:**
    - Jaw cramping or the inability to open the mouth.
    - muscle spasms often in the back, abdomen and extremities.
    - sudden painful muscle spasms often triggered by sudden noises.
    - Seizures.
- **Pertussis:**
  - **Caused by:**

        - Pertussis, also known as **whooping cough**, is a highly contagious respiratory infection caused by the **bacterium *Bordetella pertussis***. In 2018, there were more than 151 000 cases of pertussis globally.
        - The disease is most dangerous in infants, and is a significant cause of disease and death in this age group.
    - **Spread:**
        - Pertussis spreads **easily from person to person mainly through droplets** produced by coughing or sneezing.

What are the Key Highlights of the Report?

- Three million children have not received the first dose of the Diphtheria, Tetanus, and Pertussis (DPT) vaccine in 2020.
- The percentage of children worldwide who have received three doses of the DTP vaccine **declined by five percentage points between 2019 and 2021.**
    - With just 8% coverage worldwide it's the **largest sustained decline in childhood vaccination.**
- Around **25 million children globally missed out on or more doses of the DTP vaccine in 2021 alone,** which is two million more than those who left out in 2020 and six million more than in 2019.
- Over **24 million children missed out on their first measles vaccine dose in 2021,** over five million more than in 2019.
- Compared with 2019, 6.7 million more children missed out on the third dose of the polio vaccine and 3.5 million missed the first dose of the **Human papillomavirus (HPV) vaccine**, which protects girls against cervical cancer later in life.
- The **coverage of vaccines dropped in every region whereas East Asia and the Pacific region** recorded the steepest reversal:
    - **Around 18 million of the 25 million children who did not receive a single DTP dose in 2021** belong to low- and middle-income countries, with India, Nigeria, Indonesia, Ethiopia, and the Philippines recording the highest numbers,
    - **Myanmar and Mozambique record the largest increase in the number of children who didn't receive a single vaccine between 209 and 2021.**

What are the Contributing Factors for the Decline?

- The decline was due to **many factors including an increased number of children** living in conflict and fragile settings where immunization access is often challenging.
- It was also due to **increased misinformation and Covid-19-related issues** such as service and **supply chain disruptions**, resource diversion to response efforts, and containment measures that limited immunization service access and availability.

What was the India’s Performance?

- Annually, India vaccinates more than 30 million pregnant women and 27 million children through its universal immunisation programme.
- India **prevented further backslide by introducing catchup programs** like **Intensified Mission Indradhanush 3.0,** which helped in **reducing the number of children who had left the first dose from 3 million to 2.7 million in 2021,** as compared to 2019 when 1.4 million children didn't receive the first dose.
- India effectively **avoided a drop in coverage by the early restoration of routine immunisation services,** along with evidence-based catch-up programmes, which enabled it to avoid a drop in routine immunisation coverage.
- India also launched the **Intensified Mission Indradhanush 4.0** in February 2022 with the aim to immunize every pregnant woman and child who had missed their vaccination.

What are the related Global Initiatives?

- **Global Immunization Agenda 2030 (IA2030):**
  - It is a **strategy for all countries and relevant global partners** to achieve set goals on disease prevention through immunisation and vaccine delivery to everyone, everywhere, at any age.
  - **WHO** and UNICEF are collaborating with **Gavi,** the Vaccine Alliance, and other partners to implement the **Global Immunization Agenda 2030 (IA2030).**
- **World Immunisation Week:**
  - World Immunization Week is **celebrated every year** in the last week of April.
  - It aims to **promote the use of vaccines** to protect people of all ages against disease.
  - Immunisation describes the process whereby people are protected against illness caused by infection with microorganisms (formally called pathogens). The term vaccine refers to the material used for immunisation.

Way Forward

- There is a **need to intensify efforts for catch-up vaccination** to address backsliding on routine immunization, expand outreach services in underserved areas to reach missed children, and implement campaigns to prevent outbreaks.
- Further there is a **need to implement evidence-based, people-centred strategies** to build trust in vaccines and immunization, counter misinformation and increase vaccine uptake, particularly among vulnerable communities.
- It is also **needed to prioritize health information and disease surveillance systems** strengthening to provide the data and monitoring needed for programmes to have maximum impact.

UPSC Civil Services Examination Previous Year Question (PYQ)

Q. Mission Indradhanush' launched by the Government of India pertains to (2016)

(a) immunization of children and pregnant women
(b) construction of smart cities across the country
(c) India's own search for the Earth-like planets in outer space
(d) New Educational Policy

Ans: (a)

Exp:

- **Mission Indradhanush is an immunization scheme launched by the Ministry of Health and Family Welfare, GoI on 25th December, 2014.**
- Depicting seven colours of the rainbow, it aimed to cover all those children by 2020 who are either unvaccinated, or are partially vaccinated against seven vaccine preventable diseases which include diphtheria, whooping cough, tetanus, polio, tuberculosis, measles and hepatitis B.
- The mission is technically supported by WHO, UNICEF, Rotary International and other donor partners. Therefore, option (a) is the correct answer.

Source: IE