Health Effects of Covid-19 Related Immunisation Disruptions

For Prelims: Covid-19 pandemic, Measles, Rubella, HPV (Human Papillomavirus), Hepatitis B, Diphtheria, Tetanus, and Pertussis (DTP) vaccine.

For Mains: Health effects of Covid-19 Related Immunization Disruptions, Government Policies & Interventions.

Source: DTE

Why in News?

Recently, a new paper has been published in the journal **The Lancet Global Health titled**- ***Estimating the Health Effects of Covid-19-Related Immunization Disruptions in 112 Countries During 2020–30: A Modelling Study,*** which highlights that **Global immunization declined during the** Covid-19 pandemic, increasing disease burden and outbreak risk.

What are the Key Highlights of the Report?

- **Global Immunisation Decline:**
  - The Covid-19 pandemic led to a decline in global immunisation coverage, which increased **disease burden and outbreak risks** across various countries.
  - It is estimated that disruptions to Measles, Rubella, HPV (Human Papillomavirus), Hepatitis B, meningitis A, and **yellow fever vaccination** could lead to approximately **49,119 additional deaths during the calendar years 2020–2030**, with measles being the main contributor to this increase in mortality.
    - For the years 2020–2030, disruptions in vaccination coverage across all **14 pathogens could result in a 2.66% reduction** in the long-term effect, translating to a decrease in the number of deaths **averted from 37,378,194 to 36,410,559.**
- **Importance of Catch-Up Vaccines:**
  - The importance of **catch-up vaccines** is emphasised, particularly **for diseases like measles and yellow fever,** which experienced an immediate increase in burden post-pandemic.
  - Catch-up activities were found to be **effective in averting excess deaths,** with the potential to **prevent approximately 79% of excess deaths** related to measles, rubella, HPV, hepatitis B, and yellow fever.
- **Impact on DTP Vaccine Coverage:**
  - The pandemic impacted **coverage for the** Diphtheria, Tetanus, and Pertussis (DTP) vaccines, resulting in an additional 6 million children missing out on vaccination in 2021 globally.
- **Resurgence of Measles Cases:**
  - There has been a resurgence of measles cases reported in several countries, including

those where measles was previously considered eradicated, such as the **United Kingdom and the United States.**
    - In 2021, nearly 61 million measles vaccine doses were postponed or missed due to Covid-19-related delays in immunisation campaigns in 18 countries.
    - Furthermore, in 2022, there was an increase in **measles cases and deaths globally compared to 2021 levels**, with millions of children missing their vaccine doses, particularly in countries like **Nigeria, Pakistan, and India.**
- **Recommendations:**
  - **Effectiveness of Catch-Up Activities:** The study suggested that implementing catch-up vaccination activities could potentially avert 78.9% of excess deaths between calendar years 2023 and 2030.
    - This means that proactive catch-up efforts have the potential to **significantly mitigate the adverse impacts** of vaccine-coverage disruptions.
  - **Importance of Timing and Targeting of Catch-Up Activities:** It is important for timely implementation of **catch-up vaccination activities,** tailored to specific cohorts and regions most affected by disruptions.
    - This targeted approach can help improve vaccine coverage and mitigate the adverse effects of under-immunization.
  - **Significance of Continued Immunisation Efforts:** Continued importance of sustained immunization efforts, particularly for vaccines like HPV is important, which play a crucial role in preventing cervical cancer.
    - This underscores the necessity of ongoing vaccination campaigns even amidst disruptions to ensure long-term public health benefits.

What are the Major Initiatives Related to Immunisation?

- **Global:**
  - Immunisation Agenda 2030 **(IA2030)**: It sets an ambitious, overarching global vision and strategy for vaccines and immunisation for the decade 2021–2030.
    - By the end of the decade, IA2030 aims to:
      - Reduce by 50% the number of children receiving zero vaccine doses
      - Achieve 500 introductions of new or under-utilised vaccines in low- and middle-income countries
      - Achieve 90% coverage for essential childhood vaccines
  - World Immunisation Week: It is celebrated every year in the last week of April.
  - Big Catch-Up Initiative: It was launched by the **WHO**, UNICEF, **Bill & Melinda Gates Foundation** along with Immunization Agenda 2030 and many other global and national health partners, a targeted global effort **to boost vaccination among children following declines driven by the Covid-19 pandemic.**
- **Indian:**
  - **Universal Immunization Programme (UIP):**
    - The program provides free immunization against 12 vaccine-preventable diseases.
    - **Nationally Against 9 Diseases**: Diphtheria, Pertussis, Tetanus, Polio, Measles, Rubella, severe form of Childhood Tuberculosis, Hepatitis B and Meningitis & Pneumonia caused by Haemophilus influenza type B
    - **Sub-nationally Against 3 Diseases**: Rotavirus diarrhoea, Pneumococcal Pneumonia and Japanese Encephalitis
    - Two major milestones of the UIP have been the eradication of polio in 2014 and the **elimination of maternal and neonatal tetanus in 2015.**
  - **Mission Indradhanush:**
    - Mission Indradhanush (MI) was launched by the Ministry of Health and Family Welfare (MOHFW) in 2014 **to vaccinate all unvaccinated and partially vaccinated children under UIP.**
      - It is being implemented in several phases.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims:

Q1. **Consider the following statements:**

1. Adenoviruses have single-stranded DNA genomes whereas retroviruses have double-stranded DNA genomes.
2. Common cold is sometimes caused by an adenovirus whereas AIDS is caused by a retrovirus.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Ans: (b)

Mains:

Q. Critically examine the role of WHO in providing global health security during the Covid-19 pandemic. **(2020)**