

DISCUSS IMMUNIZATION AND PREVENTION

Immunization

Immunization is the process by which an individual is protected from infectious diseases through the administration of vaccines. It stimulates the body's immune system to recognize, fight, and remember pathogens without causing the actual disease.

IMPORTANCE OF IMMUNIZATION

- A. Prevents morbidity and mortality from vaccine-preventable diseases.
- B. Contributes to herd immunity.
- C. Reduces healthcare costs and economic burden.
- D. Helps in eradication/elimination efforts (e.g., polio, smallpox).
- E. Protects vulnerable populations (infants, elderly, immunocompromised).

PREVENTION

Prevention refers to actions taken to reduce the occurrence, spread, or impact of disease and health problems. It includes three levels:

A. Primary Prevention

Aimed at preventing the onset of disease before it occurs.

Examples

- Immunization (most important primary prevention method)
- Health education (handwashing, safe sex)
- Environmental sanitation (safe water, proper waste disposal)
- Nutritional interventions
- Use of insecticide-treated nets (ITNs)

B. Secondary Prevention

Aimed at early detection and prompt treatment to halt disease progression.

Examples

- Screening (BP checks for hypertension, HIV testing, breast self-examination)
- Early diagnosis and treatment of malaria, TB, STIs
- Growth monitoring in children
- Antenatal care (ANC)

C. Tertiary Prevention

Aimed at reducing disability, restoring function, and improving quality of life after disease has occurred.

Examples

- Rehabilitation (physiotherapy, occupational therapy)
- Long-term treatment for chronic diseases (diabetes, hypertension)
- Surgery to correct deformities
- Support groups and counselling

Role of Immunization in Prevention

1. Key part of primary prevention because it stops diseases before they start.
2. Reduces the reservoir of infection.
3. Protects unvaccinated people through herd immunity.
4. Breaks the transmission chain of communicable diseases.
5. Helps control epidemics.

Examples of Vaccine-Preventable Diseases

1. Tuberculosis (BCG)
2. Measles
3. Polio
4. Diphtheria, Pertussis, Tetanus (DPT)
5. Hepatitis B
6. Yellow fever
7. HPV (prevents cervical cancer)
8. COVID-19
9. Chickenpox.