

## IMMUNIZATION AND PREVENTION

Immunization and prevention are two pillars of public health. They work together to reduce the spread of diseases, protect individuals and communities, and reduce healthcare costs.

### 1 : IMMUNIZATION

What Is Immunization? Immunization is the process of helping the body build immunity against infectious diseases through vaccination,

### TYPES OF VACCINES

(1.) Live attenuated vaccines weakened form (e.g., measles, mumps, rubella).

(2)Inactivated vaccines, killed pathogen (e.g., polio).

(3)conjugate vaccines only parts of the pathogen (e.g HPV). Toxoid vaccines

(4)inactivated toxins (e.g. tetanus).

### BENEFITS OF IMMUNIZATION

1)Prevents serious illness, disability, and death.

2)Protects vulnerable groups (infants, elderly, immunocompromised).

3) Reduce spread of diseases.

4) Prevents outbreaks and epidemics.

2 : PREVENTION Prevention includes all activities aimed at avoiding disease, detecting it early, or managing risk factors before complications occur. It is usually divided into three levels.

A. Primary Prevention: These actions aim to stop disease before it starts Examples:

(a)Vaccination (immunization is a major primary prevention tool). (b)Hand hygiene and good sanitation. (c)safe water and food practices. (d)Healthy diet and regular exercise. (e)Avoiding tobacco and limiting alcohol.

B. Secondary prevention:Focus on early detection to improve outcomes. Examples:(a) screening test (blood pressure, pap smear, Hiv test etc) (b) Early diagnosis and prompt treatment. (c) Contact tracing in infectious disease control.

C Tertiary Prevention: actions that reduce complications of existing disease. Examples:

(a)Rehabilitation after stroke or injury.

(b) Managing diabetes to prevent kidney or eye damage.

(b)Physical therapy for chronic conditions.

(c)Long-term medication to control chronic illnesses.

D Community:Level Prevention Effective prevention requires community and policy measures, such as:Public health education, disease surveillance systems, clean water supply and sanitation programs, mandatory childhood immunization policies,emergency preparedness (e.g

pandemic response).

**BARRIERS TO IMMUNISATION & PREVENTION:** 1)Misinformation and vaccine hesitancy. 2)Accessibility issues e.g (cost, location, supply). 3)Cultural beliefs. 4)Poor healthcare infrastructure. 5)Political or logistical barriers.

To address all these barriers there will be: (a) trusted communication strategies. (b)Strong healthcare systems. (c) Community engagement. (d) availability of essential drugs.