

Prevention: Definition

Prevention refers to:

Actions aimed at eradicating, eliminating, or minimizing the impact of disease and disability, or—if not feasible—retarding the progression of disease and disability.

Levels of Prevention

Prevention is best understood through four levels:

1. Primordial prevention
2. Primary prevention
3. Secondary prevention
4. Tertiary prevention

Levels of Prevention According to Disease Stage

Main Response	Level	Stage of Disease
Health promotion & specific protection	Primary	Pre-disease
Early diagnosis & treatment	Secondary	Latent (pre-symptomatic)
Disability limitation & rehabilitation	Tertiary	Symptomatic

Primordial Prevention

- Prevention of the emergence of risk factors.
- Targets environmental, social, economic, behavioral, and cultural factors.
- Focuses on children and adolescents, where lifestyles are formed.

📌 Examples:

- Discouraging smoking in children
- Promoting healthy diet and physical activity early in life

🔑 Main strategy:

- Individual and mass education

Primary Prevention

Definition:

Action taken before the onset of disease to prevent its occurrence.

- Occurs in the pre-pathogenesis phase.
- Aims to reduce incidence.

Achieved by:

1 Health Promotion

- Health education
- Environmental modification
- Nutritional interventions
- Lifestyle & behavioral changes

2 Specific Protection

- Immunization & seroprophylaxis
- Chemoprophylaxis
- Nutrient supplementation
- Protection from occupational hazards
- Food & drug safety
- Control of environmental hazards (e.g., air pollution)

Positive Health

- Maintaining an acceptable level of health
- Enables individuals to live a socially and economically productive life

Health Promotion

Defined as:

The process of enabling people to increase control over the determinants of health and thereby improve their health.

Secondary Prevention

Definition:

Action that halts disease progression at its early stage and prevents complications.

Includes:

- Early diagnosis (screening, case finding)
- Adequate treatment

Goals:

- Arrest disease progression
- Restore health
- Prevent irreversible pathological changes
- Reduce communicability of infectious diseases

✚ Protects:

- The patient → secondary prevention
- Contacts → primary prevention

Tertiary Prevention

Definition:

Measures to reduce impairments and disabilities and promote adaptation to irreversible conditions.

Includes:

- Disability limitation
- Rehabilitation

Disability Continuum

Disease → Impairment → Disability → Handicap

Definitions:

- Impairment: Loss or abnormality of structure or function
- Disability: Restriction in performing normal activities
- Handicap: Social disadvantage limiting normal role performance

Rehabilitation

Combined use of medical, social, educational, and vocational measures to achieve the highest possible functional level.

Types:

- Medical rehabilitation
 - Vocational rehabilitation
 - Social rehabilitation
 - Psychological rehabilitation
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Concept of Control

Disease control aims to reduce:

- Incidence
- Duration of disease
- Transmission
- Physical, psychosocial, and financial burden

📌 Control programs use primary + secondary prevention.

Key Public Health Terms

Control

- Reduction of incidence, prevalence, morbidity, and mortality to acceptable levels
- Requires deliberate & continuous efforts

Elimination of Disease

- Reduction of disease incidence to zero in a defined geographic area

📌 Example: Neonatal tetanus

- Requires continuous efforts
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Elimination of Infection

- Reduction of infection incidence to zero in a defined area

📌 Examples: Measles, Poliomyelitis

- Requires continuous efforts

Eradication

- Permanent worldwide reduction of infection to zero

📌 Example: Smallpox

- Requires deliberate but no continuous efforts afterward
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Extinction

- Infectious agent no longer exists in nature or labs
 - No deliberate or continuous efforts
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Control of Infectious Diseases – The 4 Cs

- Cases
- Contacts
- Carriers
- Community

Includes:

- Diagnosis, notification, isolation, disinfection
 - Treatment, follow-up, quarantine
 - Epidemiological investigation & containment
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Quarantine

Defined as:

Limitation of freedom of persons or animals exposed to a communicable disease for a period not exceeding the maximum incubation period, to prevent spread.

Golden Exam Points ★

- Primordial → prevent risk factors
 - Primary → prevent disease onset
 - Secondary → early detection & treatment
 - Tertiary → disability limitation & rehabilitation
 - Only smallpox has been eradicated
 - Elimination ≠ eradication
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