

# CHAPTER - 5

## NUTRITION AND HEALTH

### Points to be covered in this topic

→ 5.1 INTRODUCTION

→ 5.2 HEALTH CARE SYSTEMS

→ 5.3 NATIONAL HEALTH PROGRAMMES  
IN INDIA

→ 5.4 ROLE OF PHARMACISTS IN NHP

## 5.1 INTRODUCTION

- A health system comprises all organizations, institutions and resources (all elements) that are devoted to producing health actions.
- The intrinsic goal of a health system is to protect and improve the health of the people that is it is concerned with people's health.
- Health systems are the foundation to achieve and ensure health for all, the 3<sup>rd</sup> Sustainable Development Goal.

## 5.2 HEALTH CARE SYSTEMS

- Health systems can be understood in many ways.
- The World Health Organization (WHO) defines health systems as **"all the organizations, institutions, and resources that are devoted to producing health actions."**
  - i. Hospital Systems
  - ii. Types of patient care
  - iii. Public health programs

### I. Hospital systems

- A hospital system is a group of hospitals or facilities that work together to deliver services to their communities.
- Different types of hospital systems have different types of ownership and financial goals.

#### **Types of hospital systems include**

#### 1. Public Hospitals:

- Public hospitals are funded and owned by local, state or federal governments and receives money from the government. Some public hospitals are associated with medical schools.

#### 2. Non-profit Hospitals:

- Non-profit hospitals are often community hospitals and may be linked with a religious denomination. The main goal of a non-profit hospital is to provide service to the community.

#### 3. Private Hospitals:

- Private hospitals are owned by investors.
- Private hospitals tend to offer more profitable services such as rehabilitation, elective or plastic surgery or cardiology.

### II. Types of Patient Care



## 1. Primary Care

- Essential health care that is based on scientifically sound and socially acceptable methods and technology.

## 2. Specialty Care

- Specialty Care refers to higher-level medical services that typically require a request from your primary care provider.

## 3. Emergency Care

- Care for an illness, injury or condition serious enough that a reasonable person would seek care right away, but not so severe it requires emergency room care.

## 4. Mental Healthcare

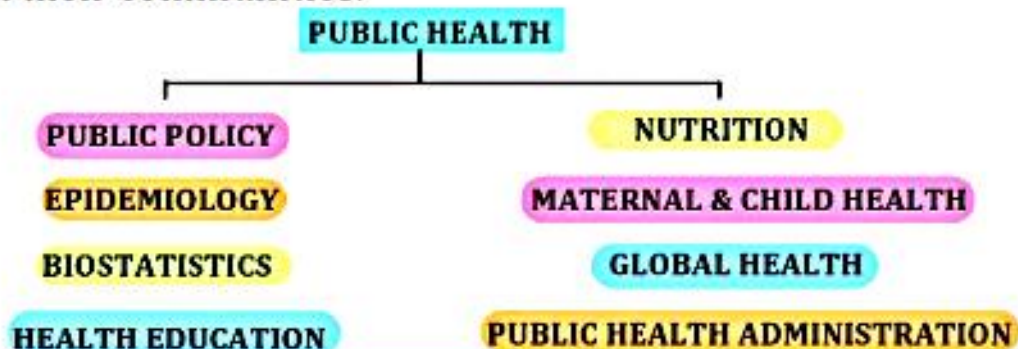
- Mental Healthcare can help when patients need help with a mental illness or emotional crisis. Mental health treatment may include medication, psychotherapy or both.

## 5. Urgent Care

- Care for an illness, injury or condition serious enough that a reasonable person would seek care right away, but not so severe it requires emergency room care.

## III. Public health programme

- Public health is the science of protecting and improving the health of people and their communities.



## 5.3 NATIONAL HEALTH PROGRAMMES IN INDIA

- After independence of our nation, the National Health Programmes are launched by the Central Government for the control/ eradication of the communicable diseases, improvement of environmental sanitation, improving the standard of nutrition, control of population and promotion of rural health. Main objectives of the programmes are as follows:



❖ **The main activities of these programmes are:**

- Promoting healthy diet and improving food quality and reducing tobacco smoking.
- Reducing alcohol consumption, changing alcohol consumption patterns, and reducing alcohol abuse-related health damage.
- Reducing abuse of other psychoactive substances and drug abuse-related health damage.
- Improving efficiency of health education and health promotion programmes.
- Providing better opportunities for people with disabilities and developing their capacities to lead active lives.

❖ **Following are the some of the Health Programmes**

1. National Rabies Control Programme
2. Affordable Medicines and Reliable Implants for Treatment
3. Ayushman Bharat - Health and Wellness Centres
4. Communicable diseases
5. Intellectual Disability related schemes
6. Janani Shishu Suraksha Karyakaram
7. Janani Suraksha Yojana
8. Labour Room Quality Improvement Initiative
9. Mission Indradhanush
10. Mission POSHAN
11. National Aayush Mission (NAM)
12. National Oral Health Programme
13. National Programme for Control and Treatment of Occupational Diseases
14. National Programme for Control of Blindness and Visual Impairment
15. National Programme for Prevention and Control of Deafness (NPPCD)
16. National Programme for the Health Care for the Elderly
17. National Programme on Climate Change and Human Health
18. National Tobacco Control Programme
19. National Viral Hepatitis Control Program
20. National Viral Hepatitis Surveillance Programme
21. Non-communicable and Communicable diseases
22. NPCDCS



23. Pradhan Mantri National Dialysis Programme
24. Pradhan Mantri Swasthya Suraksha Nidhi
25. Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)
26. Pulse Polio Programme
27. Rashtriya Bal Swasthya Karyakram (RBSK)
28. Rashtriya Kishor Swasthya Karyakram (RKSK)
29. Unique Methods of Management and treatment of Inherited Disorders

## **NATIONAL HEALTH PROGRAMMES**

### **1. National Rabies Control Programme (NRCP)**

#### **Objectives:**

- Pushing for the adoption and application of the intradermal route of post-exposure prophylaxis for high-risk groups and animal bite patients.
- Enhancing regional laboratories for rabies diagnosis under the NRCP.
- Educating medical personnel on how to treat animal bites and how to prevent rabies after exposure.
- Enhance the human rabies surveillance system. Raise community awareness via social mobilisation, communication, and lobbying.

#### **Functioning and Outcome:**

1. Rabies and animal bite surveillance.
2. Laboratory strengthening for rabies diagnosis.
3. Training and capacity building.
4. Guidelines and technical support to states.

### **2. National Oral Health Programme (NOHP)**

#### **Objectives:**

- To incorporate preventive services and oral health promotion into the general healthcare system as well as other areas that have an impact on oral health.
- To lower morbidity from dental disorders by enhancing dental care offered at district-based medical facilities.
- To enhance the factors that determine oral health.
- Promote public-private partnerships (PPPs) comprehensively in order to accomplish public health objectives.



### **Functioning and Outcome:**

- To develop a model dental health clinic in each district.
- Training of nodal medical officer.
- Monitoring, supervision, and evaluation.



### **3. National Mental Health Programme (NMHP)**

#### **Objectives:**

- To guarantee that, at least for the foreseeable future, everyone can access and obtain minimal mental health care.
- To improve mental health subspecialty resources.
- To promote the use of mental health knowledge in social development and general healthcare.

#### **Functioning and Outcome:**

- Mental health help line Numbers.
- District Mental Health Programme.
- Public-private Partnership (PPP) model activities.
- Man power development schemes.
- Centres of excellence in mental health.



### **4. National Leprosy Eradication Programme (NLEP)**

#### **Objectives:**

- At the sub-national and district levels, to bring the leprosy prevalence rate down to less than 1/10,000 people.
- To lower the national percentage of new cases with grade II disabilities to less than 1.
- To attain, on a nationwide basis, less than 1 case per million populations for cases of grade II handicap.
- To guarantee that there are no disabilities among newly diagnosed kid cases
- To get rid of stigma and discrimination against leprosy patients.

#### **Functioning and Outcome:**

1. Information, Education and Communication (IEC) and counselling.
2. Disability Prevention and Medical Rehabilitation. NGO services.
3. NLEP functions under National Health Mission (NHM).
4. Diagnosis and treatment of leprosy.
5. Capacity building.



## 5. National Tobacco Control Programme (NTCP)

### Objectives:

- To aid in the Tobacco Control Laws' efficient implementation.
- To raise public knowledge of the detrimental effects of tobacco usage and the laws governing it.



### Functioning and Outcome:

- Monitoring tobacco control laws.
- Co-ordination with Panchayati Raj Institutions for village-level activities.
- Training of health and social workers, NGOs, school teachers, enforcement officers, etc.
- Information, Education, and Communication (IEC) activities.
- School programs.

## 6. National Programme for Control of Blindness and Visual Impairment (NPCBVI)

### Objectives:

- To improve and fortify the "Eye Health for All" plan and preventative measures against visual impairment.
- In order to lessen the backlog of preventable blindness.
- Regional Institutes of Ophthalmology (RIOs) and other partners, including as medical schools, district hospitals.
- Bolster the framework in each district to enable the provision of comprehensive, high-quality eye care.

### Functioning and Outcome:

1. Developing multi-purpose district mobile ophthalmic units in district hospitals.
2. Emphasis on comprehensive eye care coverage.
3. Strengthening of tertiary eye care centers.



## 7. National Organ Transplant Programme (NOTP)

### Objectives:

- To set up a mechanism for distributing and obtaining organs and tissues for transplantation.
- To encourage the donation of deceased organs and tissues.



## Functioning and Outcome:

1. Establishment of National Organ and Tissue Transplant Organization (NOTTO).
2. Establishment of Regional Organ and Tissue Transplant Organization (ROTO).
3. Establishment of State Organ and Tissue Transplant Organization (SOTTO).
4. IEC activity.

## 8. National Vector Borne Disease Control Programme (NVBDCP)

- (i) Programme for Prevention and Control of Leptospirosis (PPCL): To reduce morbidity and mortality due to Leptospirosis in humans.
- (ii) Guinea Worm Eradication Programme (GWEP): Guinea Worm Disease has been eradicated in 2000.

## Functioning and Outcome:

- Raise awareness about prompt patient discovery and appropriate care.

## 9. Vector-borne Diseases

### Objectives for Vector-borne Diseases:

To lower the morbidity from Japanese encephalitis, malaria, dengue, chikungunya, and other vector-borne diseases.

## Functioning and Outcome:

- Transmission disruption caused by vector control.
- Convergent across sectors.
- Diagnosis and medical care.

### Medication for Kala Azar

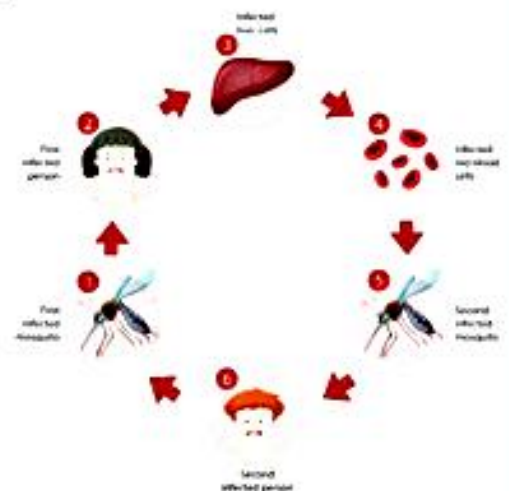
- Single dose Liposomal Amphotericin B (LAMB).
- Miltefosine.
- Amphotericin B emulsion.

## Malaria

## Functioning and Outcome:

### Integrated Vector Management (IVM):

- Insecticide Treated Bed Nets (ITNs)
- Surveillance and Case Management.
- Early case detection (passive and active).
- Epidemic Preparedness and Early Response





- Operational research and applied field research.
- Monitoring and Evaluation (M and E).
- Behaviour Change Communication (BCC).



### **Dengue Fever**

#### **Functioning and Outcome:**

- The government bears the expense of providing ELISA test kits, which are centrally supplied to ensure consistency and standardization of diagnosis.
- Patients do not pay for the diagnosis of the illness.
- Hospitals across all states have received National Guidelines for the clinical management of dengue fever, dengue Haemorrhagic fever, and dengue shock syndrome.

### **Japanese Encephalitis**

#### **Functioning and outcome:**

- Vaccination of children between 1-15 years of age
- The programme on JE has following strategies
- Early Diagnosis and Case Management



### **Chikungunya**

#### **Functioning and Outcome:**

- The Central Government offers both logistical and technical support for this programme.
- The program's execution is ensured by the state governments.
- Building capacity through integrated training, monitoring, and evaluation at every level of the health care service delivery system.
- Through a larger base and improved acceptability of appropriate and regionally relevant vector control strategies, the collaboration aims to promote standardization in diagnosis, treatment, and monitoring.

## **10. National Iodine Deficiency Disorders Control Programme (NIDDCP)**

#### **Objectives:**

- Surveys used to measure Iodine Deficiency Disorders (IDD) in the districts.
- Lab monitoring of iodated salt and urinary iodine excretion.
- The use of iodated salt in place of ordinary salt. Health education and public relations.



## **Lymphatic Filariasis**

### **Functioning and Outcome:**

- It is recommended that the Mass Drug Administration (MDA) provide antifilarial medications such as Diethylcarbamazine (DEC) and Albendazole to the eligible population who are at risk of filariasis and identify those who have the disease's chronic symptoms, such as lymphedema and hydrocele.

### **Functioning and Outcome:**

- National Reference Laboratory for monitoring IDD, four regional laboratories and 35 state laboratories have been formed.

## **11. National Programme for Palliative Care (NPPC)**

### **Objectives:**

- Strengthen the ability to provide patients with palliative care services within the National Rural Health Mission, the National Programme for Healthcare of the Elderly, the National AIDS Control Programme, and the National Programme for Prevention and Control of Cancer, Cardiovascular Disease, Diabetes, and Stroke.

### **Functioning and Outcome:**

- Provide funds for establishing state palliative care cell and palliative care services at the district hospitals.

## **12. National Programme for Prevention and Control of Fluorosis (NPPCF)**

The National Programme for Prevention and Control of Fluorosis (NPPCF) addresses the public health issue of fluorosis, which arises from the excessive intake of fluoride through sources such as drinking water, food products, and industrial pollutants over an extended period.

### **Dental Fluorosis:**

- Primarily affects children.
- Results in discoloration and disfiguring of teeth.



### **Skeletal Fluorosis:**

- Affects bones and major joints like the neck, backbone, shoulders, hips, and knees.
- Causes severe pain, rigidity, or stiffness in joints.



### **Non-Skeletal Fluorosis:**

- Manifests as gastro-intestinal complaints.



**Objective of NPPCF** - The objective of NPPCF is to prevent and control fluorosis by addressing the sources of excess fluoride and mitigating its adverse health effects. This involves measures such as improving water quality, regulating industrial processes to minimize fluoride pollution, and implementing public health initiatives to raise awareness about fluorosis and its prevention.

### **13. Revised National Tuberculosis Control Programme (RNTCP)**

#### **Objectives:**

- To achieve a rapid decline in burden of TB, morbidity and mortality while working towards elimination of TB in India by 2025.
- TB-Free India with zero deaths, disease and poverty due to tuberculosis

#### **Functioning and Outcome:**

##### **a. Private Sector Engagement:**

- The MoHFW will develop a scheme to address patients seeking care in the private sector.
- Incentives will be provided for private doctors and patients to report TB cases.

##### **b. Management and Information Service (MIS) System:**

- A robust MIS system will be developed to monitor newly diagnosed and existing TB cases.

##### **c. Diagnostic Facilities:**

- Rapid molecular tests will be expanded to ensure availability for patients referred by private practitioners.

##### **d. Patient Compliance:**

- Customized SMS services will be initiated to remind TB patients about their drug consumption schedules.

##### **e. Nutritional Support:**

- Mechanisms will be established to facilitate nutritional support for TB patients, including financial assistance through Direct Benefit Transfer (DBT).

##### **f. Incentives for States:**

- The MoHFW will work on a scheme to provide incentives to states performing well in the Revised National Tuberculosis Control Program (RNTCP).
- Incentives will be linked to performance in the "Swachh Bharat Mission."



## 14. National Programme on Health Care for Elderly (NPHCE)



### Key objectives:

#### i. Accessible, Affordable, and High-Quality Care Services:

- The primary goal is to provide healthcare services that are accessible, affordable, and of high quality, catering specifically to the long-term and comprehensive needs of the elderly.

#### ii. Creating a New Architecture for Ageing:

- Aims to establish a new architectural framework that recognizes and addresses the unique healthcare requirements of the ageing population.

#### iii. Active and Healthy Ageing:

- Promoting the concept of "Active and Healthy Ageing" underscores the importance of encouraging a lifestyle that maintains wellness, independence, and overall well-being among the elderly.

#### iv. Convergence with NRHM, AYUSH, and Other Departments:

- The program emphasizes collaboration and convergence with other health-related initiatives and departments, including the National Rural Health Mission (NRHM), Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homoeopathy (AYUSH), as well as the Ministry of Social Justice and Empowerment.

#### v. Integration with NRHM:

- Integration with NRHM indicates a comprehensive approach that extends to rural health components, ensuring that elderly individuals in rural areas have access to necessary healthcare services.

### Functioning and Outcome:

- Train employees in the public healthcare system to provide geriatric care.
- The incorporation of NRHM.
- Establishing district geriatric units with an OPD specifically for the elderly.

## 15. National Programme for Prevention and Control of Deafness (NPPCD)

### Objectives:

- To provide medical rehabilitation for deaf people of all ages.
- To stop preventable hearing loss caused by illness or trauma.
- A programme designed for those who are deaf. to increase the institutional capacity for ear care services by funding supplies, hiring qualified staff, and maintaining equipment.





### **Functioning and Outcome:**

- To raise public awareness through appropriate and successful IEC techniques, with a focus on deafness prevention in particular.
- To increase the district hospitals', community health center's, and primary health center's institutional capacity.
- To improve the ear care service delivery system.

## **16. National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPPCCDCDS)**



### **Objectives:**

- To increase the ability for prevention, early diagnosis, treatment, rehabilitation, IEC/BCC, operational research, and rehabilitation at different healthcare levels.
- To offer logistical support for primary, secondary, and tertiary healthcare diagnostics and cost-effective treatment.
- To monitor risk factors, morbidity, and mortality related to NCDs, as well as to assist in the construction of a database on NCDs through a surveillance system.
- Promoting health by behaviour modification with the help of the local community, the Civil Society, locally based organizations, the media, etc.

### **Functioning and Outcome:**

#### **1. Health Promotion, Awareness Generation, and Promotion of Healthy Lifestyle:**

**Functioning:** The program is actively involved in health promotion activities, creating awareness among the elderly population about the importance of health and encouraging the adoption of healthy lifestyles.

**Outcome:** Increased awareness and adoption of healthy practices among the elderly, leading to improved overall well-being and prevention of health issues.

#### **2. Screening and Early Detection:**

**Functioning:** The NPHCE includes screening programs to detect health issues at an early stage, allowing for timely intervention.

**Outcome:** Early detection of health conditions, enabling prompt and effective treatment, and potentially reducing the severity and complications of illnesses.



### 3. **Timely, Affordable, and Accurate Diagnosis:**

**Functioning:** Ensuring access to healthcare services that provide timely, affordable, and accurate diagnosis for elderly individuals.

**Outcome:** Improved diagnostic services lead to precise identification of health conditions, facilitating appropriate and timely treatment.

### 4. **Access to Affordable Treatment:**

**Functioning:** The program aims to provide access to affordable treatment options for elderly individuals, ensuring that financial constraints do not hinder healthcare access.

**Outcome:** Enhanced access to treatment results in improved health outcomes and quality of life for the ageing population.

### 5. **Rehabilitation:**

**Functioning:** Rehabilitation services are provided to support elderly individuals in recovering from illnesses, injuries, or managing chronic conditions.

**Outcome:** Improved functionality, independence, and quality of life for individuals who have undergone rehabilitation services.

## 17. **National Viral Hepatitis Surveillance Programme (NVHSP)**



### **Objectives:**

- To set up a network of laboratories for the purpose of conducting laboratory-based viral hepatitis surveillance throughout various parts of India.
- To determine the frequency of various forms of viral hepatitis in various regions of the nation.
- To create educational resources to raise awareness of waterborne and blood borne hepatitis among medical professionals and the general public.

### **Functioning and Outcome:**

1. The establishment of national laboratory-based hepatitis surveillance programmes for data collecting, guidance creation, and distribution.
2. A network of labs offering high-quality hepatitis marker testing.
3. IEC development for the community and providers.
4. Pharmacists are involved in disaster relief efforts.
5. Establishing baseline data on hepatitis in order to assess the effect.
6. Manpower and healthcare provider training in ten regional laboratories



## **18. National Programme for Prevention and Management of Trauma and Burn Injuries (NPPMTBI)**

### **Component I: Trauma**

#### **Objectives:**

- To create the Trauma Registry, National Injury Surveillance, and Capacity Building Centre to facilitate the gathering, organising, evaluating, and sharing of data for the purpose of formulating public policy and implementing preventative measures.

#### **Functioning and Outcome:**

- Infrastructure strengthening.
- National Injury Surveillance, Trauma Registry and Capacity Building Center established.
- JEC activities initiated.

### **Component II: Burn Injuries**

#### **Objectives:**

- To implement a burn data registry under NPPMBI with integration with the National Injury Surveillance Centre for the collection, compilation, and analysis of burn injury data in order to reduce the incidence of burn injury cases;
- To conduct research for assessing behavioural, social, and other determinants of burn injuries in the nation in order to facilitate effective need-based programme planning, monitoring, and evaluation.

#### **Functioning and Outcome:**

- Training, Monitoring and evaluation, Research, Treatment, Prevention programme (IEC), Rehabilitation

## **19. Health Programmes Monitored by National Centre for Disease Control (NCDC) (a) Antimicrobial Resistance (AMR) Containment**

#### **Objectives:**

- Create a nation-wide laboratory-based AMR surveillance system to produce high-quality data on antibiotic resistance. Monitor the use of antibiotics in various healthcare environments.
- Raise community and healthcare practitioners' knowledge about antimicrobial resistance and the prudent use of antibiotics.



### **Functioning and Outcome:**

1. IEC activities, Strengthening Laboratory capacity for AMR detection.
2. AMP surveillance, National Treatment guidelines.
3. Infection Prevention and Control guidelines and surveillance of Healthcare associated infections,

## **20. National Programme on Climate Change and Human Health (NPCCHH)**



### **Objectives:**

- To strengthen collaborations, establish synchronicity with other missions, and guarantee that health is suitably represented in the nation's climate change agenda.
- To increase the ability of research to close the evidence gap about the effects of climate change on human health.
- To raise knowledge of the effects of climate change on human health among the general public, medical professionals, and policy makers.

### **Functioning and Outcome:**

- I. An integrated monitoring system that gathers and analyses health-related data incorporating environmental, socioeconomic, and occupational variables as well as meteorological aspects
- II. Control of the main environmental factors that affect health, such as food, waste management, agriculture, transportation, and the quality of the air and water.
- III. Changing the general public's awareness and behaviour regarding the effects of climate-sensitive diseases, their prevention, and strategies for adapting to them.

## **21. Integrated Disease Surveillance Programme (IDSP)**



### **Objectives:**

To strengthen/maintain decentralized laboratory-based IT enabled disease surveillance system for epidemic-prone diseases to monitor disease trends and to detect and respond to outbreaks in early rising phase through trained Rapid Response Teams (RRTs).

### **Functioning and Outcome:**

- The creation of surveillance units at the Centre, State, and District levels, which facilitates the integration and decentralization of surveillance operations.



### 23. Yaws Eradication Programme (YEP)

The Yaws Eradication Programme (YEP) is a public health initiative focused on eliminating yaws, a tropical disease caused by the *bacterium Treponema pallidum* subspecies pertenue. Key elements of the program include:

- **Mass Treatment Campaigns:** Administering antibiotics to entire communities, targeting both symptomatic individuals and asymptomatic carriers.
- **Surveillance and Case Detection:** Establishing systems to identify and report yaws cases, involving healthcare workers in diagnosis and reporting.
- **Contact Tracing:** Identifying and treating individuals in close contact with confirmed yaws cases to prevent further transmission.
- **Community Engagement and Education:** Educating communities about yaws, its transmission, and the importance of early detection and treatment to reduce stigma and encourage seeking medical care.

### 24. National Acquired Immuno-Deficiency Syndrome (AIDS) control program

The National AIDS Control Programme (NACP) is a comprehensive initiative undertaken by many countries to combat the spread of HIV/AIDS. The program is typically led by the national health authorities and is designed to address various aspects of HIV prevention, care, support, and treatment.

#### **Prevention and Education:**

- Implementing awareness campaigns to educate the public about HIV transmission, prevention methods, and stigma reduction.
- Promoting safe sex practices and distributing condoms to high-risk populations.

#### **Testing and Counselling:**

- Expanding access to voluntary HIV testing and counselling services.
- Encouraging regular testing, especially among high-risk groups.

#### **Treatment and Care:**

- Expanding access to antiretroviral therapy (ART) for people living with HIV/AIDS.
- Establishing and strengthening healthcare infrastructure for the treatment and care of HIV/AIDS patients.



### **Targeted Interventions for Key Populations:**

- Designing and implementing targeted interventions for high-risk populations such as sex workers, men who have sex with men (MSM), transgender individuals, and migrants.
- Reducing social and legal barriers to healthcare access for these populations.

### **Surveillance and Monitoring:**

- Establishing and maintaining a robust system for HIV surveillance.
- Regularly monitoring and evaluating program outcomes and adjusting strategies accordingly.

### **Policy and Advocacy:**

- Developing and implementing policies that support HIV prevention, treatment, and care.
- Advocating for the rights of people living with HIV/AIDS and marginalized populations.

### **Research and Innovation:**

- Supporting research initiatives to better understand the epidemiology of HIV and explore new prevention and treatment approaches.
- Integrating innovations such as pre-exposure prophylaxis (PrEP) into prevention strategies.

## **25. Pradhan Mantri Swasthya Suraksha Yojana (PMSSY):**

**Pradhan Mantri Swasthya Suraksha Yojana** aiming to correct imbalances in the availability of affordable healthcare facilities nationwide and enhance quality medical education, PMSSY focuses on under-served.

**Nutrition Improvement Program:** Addresses malnutrition and nutritional deficiencies through education, supplementation, and access to nutritious food.

**Water and Sanitation Program:** Aims to improve access to clean water and sanitation facilities to prevent waterborne diseases and improve overall public health.

**Non-Communicable Disease Prevention Program:** Targets lifestyle-related diseases such as diabetes, cardiovascular diseases, and cancer through prevention, early detection, and management strategies.



## 5.4 ROLE OF PHARMACISTS IN NHP

Pharmacists play a crucial role in the implementation and success of national health programs. Their expertise in medications, patient care, and healthcare systems positions them as valuable contributors to various aspects of public health initiatives. Here are some key roles that pharmacists often play in national health programs:



### **Medication Management:**

Pharmacists are responsible for ensuring the safe and effective use of medications. They play a vital role in medication management, dispensing prescriptions, providing patient education on proper medication use, and monitoring for potential drug interactions or adverse effects.

### **Immunization Programs:**

Pharmacists often participate in immunization programs by administering vaccines, providing education on vaccine schedules, and promoting immunization awareness.

### **Chronic Disease Management:**

Pharmacists contribute to the management of chronic diseases by working with patients to optimize medication adherence, monitor disease progression, and provide counselling on lifestyle modifications.

### **Health Promotion and Education:**

Pharmacists are well-positioned to engage in health promotion and education activities.

### **Collaboration in Multidisciplinary Teams:**

Pharmacists collaborate with other healthcare professionals, including physicians, nurses, and public health officials, as part of multidisciplinary teams. This collaboration ensures comprehensive patient care and program implementation.



### **Medication Counselling:**

Pharmacists provide medication counselling to patients, explaining the importance of prescribed medications, potential side effects, and proper administration. This is crucial for patient understanding and adherence.

### **Adverse Event Monitoring:**

Pharmacists play a role in monitoring and reporting adverse events associated with medications. This information contributes to pharmacovigilance efforts and helps ensure the safety of pharmaceutical interventions.

### **Infectious Disease Control:**

In the context of infectious disease control, pharmacists may be involved in dispensing antiretrovirals for HIV treatment, antimalarials, or antibiotics for infectious diseases. They also contribute to education on disease prevention.

### **Public Health Surveillance:**

Pharmacists participate in public health surveillance efforts by reporting trends in medication use, identifying potential outbreaks or clusters of adverse events, and collaborating with health authorities to address emerging health issues.

### **Disaster and Emergency Response:**

During disasters or emergencies, pharmacists play a crucial role in providing access to essential medications, ensuring proper storage and handling of pharmaceuticals, and contributing to healthcare response efforts.

### **Health Technology and Innovation:**

Pharmacists may engage in the implementation of health technologies, such as electronic health records and telemedicine, to improve patient care and enhance the efficiency of health programs.