Program	**:**	B. Pharmacy
Name of Unit	**:**	National Health Programmes
Subject /Course name	**:**	Social and Preventive Pharmacy
Subject/Course ID	**:**	BP802T
Class: B.Pharm. Semester	**:**	8th
Module	**:**	3
Course coordinator	**:**	Sharanpreet Kaur
Mobile No.	**:**	9465591459
Email id	**:**	Preetsharan240@gmail.com

Learning Outcome of Unit

LO	Learning Outcome (LO)	Course Outcome Code
LO1	To understand the role of government in management of various diseases.	BP802.3
LO2	To learn the concept of national health programme.	BP802.3
LO3	To apply the knowledge of national health programme in real life.	BP802.3

Module Content Table

No.	Topic
1	HIV and AIDS control programme, TB, Integrated disease surveillance program (IDSP), National leprosy control programme, National mental health program, Nationalprogramme for prevention and control of deafness, Universal immunization programme, National programme for control of blindness, Pulse polio programme.

3.1 HIV AND AIDS CONTROL PROGRAMME

The HIV and AIDS control programme in India, led by the **National AIDS Control Organisation (NACO)** under the Ministry of Health and Family Welfare, is recognized globally as a successful public health intervention. Initiated in 1992, the program has evolved through five phases (NACP I-V), shifting from mere awareness to comprehensive, rights-based prevention, treatment, and care.

3.1.1. Institutional Framework: NACO and SACS

- NACO (National AIDS Control Organisation): Established in 1992 to coordinate a multi-sectoral national strategy.
- SACS (State AIDS Control Societies): Implement the programme at the state level, ensuring decentralized management.
- DAPCU (District AIDS Prevention and Control Units): Established to strengthen monitoring and coordination at the district level.

3.1.2. Evolution of the Programme (NACP Phases)

The programme has progressed from awareness to sustainable, long-term impact:

- **NACP I & II (1992-2006):** Focused on creating awareness, ensuring safe blood transfusions, and identifying high-risk groups.
- **NACP III (2007-2012):** Focused on reversing the epidemic through massive scale-up of Targeted Interventions (TIs) and decentralized services.
- **NACP IV (2012-2021):** Accelerated the reversal of the epidemic, implemented the "Test and Treat" policy, and introduced Mission Sampark.
- **NACP V (2021-2026):** Aims to end the HIV/AIDS epidemic by 2030, aligning with UN Sustainable Development Goals (SDG 3.3). It focuses on 95-95-95 targets (95% know status, 95% on treatment, 95% virally suppressed).

3.1.3. Core Pillars of the Control Programme

The programme is built on two primary pillars: Prevention and Care, Support & Treatment (CST).

National AIDS Control Organization

A. Prevention Strategies

- Targeted Interventions (TIs): Focused on high-risk groups (HRGs) such as Female Sex Workers (FSW), Men who have Sex with Men (MSM), Transgender populations, and Injecting Drug Users (IDU).
- Bridge Population Interventions: Reaches out to migrants and truck drivers, facilitating services through Link Worker Schemes in rural areas.
- Harm Reduction: Opioid Substitution Therapy (OST) and Needle-Syringe Exchange Programmes (NSEP) are provided for IDUs to reduce HIV transmission.
- Blood Safety: Mandatory testing of all blood units for HIV, Hepatitis B & C, Malaria, and Syphilis.
- ICTCs (Integrated Counselling and Testing Centres): Free HIV testing and counselling services provided nationwide.
- Prevention of Parent to Child Transmission (PPTCT): A comprehensive package of services for pregnant women living with HIV.

B. Care, Support, and Treatment (CST)

- Free ART: Free Anti-Retroviral Therapy (ART) is provided to over 14 lakh people through a massive network of ART centers.
- Test and Treat Policy: Initiating ART for all diagnosed cases immediately, regardless of CD4 count.
- Mission Sampark: Tracing and re-engaging HIV-positive people who dropped out of treatment.
- Viral Load Testing: Routine, free viral load testing to monitor treatment effectiveness.

- HIV-TB Coordination: Intensified case-finding for TB among PLHIV and vice-versa (Joint Working Group).

3.1.4. Key Legislative and Rights-Based Measures

- HIV/AIDS (Prevention and Control) Act, 2017: A landmark legislation that prohibits discrimination against PLHIV in workplaces, hospitals, and educational institutions. It mandates informed consent for testing and ensures confidentiality.
- Ombudsman**:** Appointed in states to address complaints related to discrimination and violation of rights.

3.1.5. Innovations and Recent Initiatives (NACP V)

- Sampoorna Suraksha Kendras (SSK): Single-window model providing a comprehensive package of services for HIV, STI, and other health issues for high-risk populations.
- Community-Based Screening (CBS): Utilizing trained volunteers to test hard-to-reach populations.
- Dolutegravir-based Regimen: Transition to highly effective, modern ART regimes.
- Digital Integration: Using ICT to strengthen program monitoring and service delivery.

3.1.6. Impact and Achievements

- **Declining Prevalence:** Adult HIV prevalence in India is very low at 0.22%.
- **Reduction in New Infections:** Annual new HIV infections in India declined by 48% (2010–2020), which is more promising than the global average of 31%.
- **Reduction in AIDS-related Deaths:** AIDS-related deaths declined by 82% against the global average of 42% (2010–2020).

Summary

The Indian HIV/AIDS control programme has successfully moved from crisis management to sustained public health action, emphasizing rights, community participation, and universal access to care, with the firm goal of eliminating HIV as a public health threat by 2030.

3.2 REVISED NATIONAL TB CONTROL PROGRAMME (RNTCP)

The Revised National TB Control Programme (RNTCP) was a comprehensive, public health initiative launched by the Government of India in 1997 to combat the high burden of Tuberculosis (TB) in the country. RNTCP, which adopted the internationally recommended DOTS (Directly Observed Treatment, Short Course) strategy, aimed to overcome the limitations of the previous National TB Programme (NTP, 1962), which suffered from low cure rates and inadequate drug supply.

In 2020, to reflect the ambitious goal of eliminating TB in India by 2025, RNTCP was renamed as the National TB Elimination Program (NTEP).

3.2.1. RNTCP Background and Evolution

- Launch: Pilot testing started in 1993; nationwide implementation began in 1997.
- Coverage: Achieved 100% population coverage in March 2006.
- Goal: To decrease mortality and morbidity due to TB and cut the chain of transmission until TB ceases to be a major public health problem.
- Targets: Achieve >90% notification rate for all TB cases, >90% success rate for new cases, and >85% for re-treatment cases.

3.2.2. Core Components of RNTCP (DOTS Strategy)

RNTCP's effectiveness is based on five key components:

1. **Political and Administrative Commitment:** Ensuring sustained funding and prioritization of TB control.
2. **Good Quality Diagnosis:** Decentralized sputum smear microscopy at Designated Microscopy Centres (DMCs) to identify infectious cases.
3. **Uninterrupted Supply of Quality Drugs:** Providing a complete, free supply of Anti-TB drugs.

4. **Directly Observed Treatment (DOT):** Ensuring patients swallow their medication under the supervision of a health worker or community volunteer to ensure adherence.

5. **Systematic Monitoring and Accountability:** Using a standardized recording and reporting system (e.g., Nikshay) to track patient outcomes.

3.2.3. Key Strategies and Innovations

- **Case-based Reporting (Ni-kshay):** Introduced in 2012, this web-based system helps in registering patients, tracking treatment adherence, and facilitating data management.
- **TB-HIV Collaborative Activities:** Intensified collaboration with the National AIDS Control Programme (NACP) to provide joint testing and counseling, especially in high-prevalence states.
- **Public-Private Mix (PPM):** Engaging private practitioners and NGOs to report TB cases and manage patients according to RNTCP guidelines.
- **DOTS Plus/PMDT:** Programmatic Management of Drug-Resistant TB (PMDT) to diagnose and treat Multi-Drug Resistant TB (MDR-TB).
- **Active Case Finding:** Targeted screening in high-risk populations, slums, and vulnerable communities.
- **Nutritional Support:** Direct Benefit Transfer (DBT) of financial incentives (e.g., Nikshay Poshan Yojana) to patients for nutritional needs during treatment.

3.2.4. Organizational Structure

RNTCP operates through a decentralized structure integrated into the general health system, under the National Health Mission (NHM):

- **National Level:** Central TB Division (Technical wing).
- **State Level:** State TB Cell (under State Health Society).
- **District Level:** District TB Centre (DTC) overseen by a District TB Officer.
- **Tuberculosis Unit (TU):** Formed at the sub-district level (5 lakh population, 2.5 lakh in tribal areas).

- **Designated Microscopy Centre (DMC):** Micro-level units covering ~1 lakh population.

3.2.5. Transition to NTEP (2020)

In January 2020, RNTCP was renamed National Tuberculosis Elimination Programme (NTEP) to align with India's commitment to achieving TB elimination by 2025, five years ahead of the global Sustainable Development Goals (SDG) target of 2030. Key changes included the removal of Category-II regimens, focusing on rapid molecular diagnostics (CBNAAT/TrueNat) over conventional smear microscopy, and introducing injectable-free regimens.

3.2.6. Achievements of RNTCP

- **Treatment Success:** Under RNTCP, treatment success rates for new smear-positive cases improved significantly, often exceeding 85-88%.
- **High Coverage:** Successfully treated millions of patients with free diagnostics and medication.
- **Drug Resistance:** Established laboratory networks for Multi-Drug Resistant TB (MDR-TB) diagnosis.

3.3 INTEGRATED DISEASE SURVILLIANCE PROGRAM (IDSP)

The **Integrated Disease Surveillance Programme (IDSP)** is a decentralized, state-based surveillance initiative in India launched by the Ministry of Health and Family Welfare (MoHFW) in November 2004 with World Bank assistance. It was established to strengthen disease surveillance for epidemic-prone diseases, allowing for the early detection of warnings signs and timely public health responses.

Currently, the IDSP is part of the National Health Mission (NHM) and is fully financed by the central and state governments.

3.3.1. Objectives of IDSP

- Early Detection & Response: To detect early warning signals of impending outbreaks and respond promptly through Rapid Response Teams (RRTs).
- Decentralized Surveillance: To strengthen/maintain a decentralized, laboratory-based, IT-enabled surveillance system.
- Disease Trends Monitoring: To monitor disease trends and provide data for evaluating disease control programs.
- "One Health" Approach: To integrate surveillance across human, environmental, and veterinary sectors.

3.3.2. Structure and Implementation

IDSP operates through a three-tier structure:

- **Central Surveillance Unit (CSU):** Established at the National Centre for Disease Control (NCDC), Delhi, to manage national data and policy.
- **State Surveillance Units (SSU):** Located in all State/UT headquarters.
- **District Surveillance Units (DSU):** Established in districts to collect and analyze data.

3.3.3. Key Programme Components

- **Integration and Decentralization:** Combining surveillance activities for various diseases into a single, comprehensive system.

- **Human Resource Development:** Training State/District Surveillance Officers, RRTs, and paramedical staff on surveillance principles.
- **Information Communication Technology (ICT):** Utilization of a web-based portal (www.idsp.nic.in) and later the Integrated Health Information Platform (IHIP) for real-time data collection, collation, analysis, and dissemination.
- **Laboratory Strengthening:** Strengthening district laboratories and creating a referral laboratory network for disease confirmation.
- **Media Scanning and Verification Cell (MSVC):** Monitored daily to detect unusual health events reported in the media.

3.3.4. Data Management and Surveillance Method

Data under IDSP is collected on epidemic-prone diseases on a weekly basis (Monday–Sunday). The data is collected using three standard reporting formats:

1. **Form S (Syndromic):** Filled by Health Workers (ASHA/ANM) based on symptoms (e.g., fever, diarrhea).
2. **Form P (Presumptive):** Filled by Medical Officers based on clinical diagnosis.
3. **Form L (Laboratory):** Filled by laboratory staff for confirmed cases.

Key surveillance indicators: The weekly data analysis helps districts track rising trends of illnesses. When a trend is identified, the District RRT is deployed to investigate.

3.3.5. Evolution to IHIP (Digital Transformation)

In 2021, the **Integrated Health Information Platform (IHIP)** was launched to transform the paper-based system into a digital, near-real-time electronic system.

- **Features:** Real-time data reporting via mobile apps, GPS-enabled geographical maps (GIS), heat maps, and automated alerts.
- **Scope:** Expanded to include 33 priority diseases (up from the original fewer diseases).

3.3.6. Role of IDSP in Major Health Events

IDSP has been instrumental in managing several outbreaks in India, including:

- H1N1 Influenza surge (2009).

- Crimean Congo Haemorrhagic Fever (CCHF) in Gujarat (2010-11).
- Zika virus in Rajasthan and Madhya Pradesh (2018).
- COVID-19 Pandemic Surveillance (2020-2023).

3.3.7. Achievements

- **Nationwide Coverage:** Surveillance units established in almost all districts.
- **High Reporting Rate:** Over 90% of districts report weekly data.
- **Outbreak Management:** Thousands of outbreaks are reported and responded to annually (e.g., 1,935 in 2015).
- **Training:** A massive cadre of trained public health professionals has been created across the country.

3.3.8. Challenges and Future Directions

Despite its success, IDSP faces challenges including:

- **Private Sector Participation:** Limited reporting from the private health sector.
- **Manpower Turnover:** High turnover of contractual staff.
- **Strengthening Local Capacity:** Need for further strengthening laboratories at the periphery.

3.4 NATIONAL LEPROSY CONTROL PROGRAMME (NLCP)

The National Leprosy Control Programme (NLCP) was a landmark public health initiative launched by the Government of India in 1955 to address the high burden of leprosy. It focused on controlling the spread of the disease through early detection and treatment, laying the foundation for modern leprosy services in the country.

3.4.1. Historical Background and Evolution

- **Launch (1955):** Initially launched during the First Five-Year Plan as a control-focused program.
- **Strategy (1955-1982):** Used the SET (Survey, Education, and Treatment) method, focusing on dapsone monotherapy.
- **The Turning Point (1982-1983):** Introduction of **Multi-Drug Therapy (MDT)** revolutionized treatment, leading to the shift to NLEP in 1983.
- **Elimination Goal:** India achieved the elimination of leprosy as a public health problem (defined as less than 1 case per 10,000 population) at the national level in December 2005.

3.4.2. Aims and Objectives of NLCP/NLEP

The program aims to eliminate leprosy entirely (reduce cases to zero) by treating it as a public health issue that requires community-based action.

- **Early Detection and Treatment:** Identify cases early and provide free MDT to break the chain of transmission.
- **Disability Prevention:** Minimize the development of deformities and provide medical rehabilitation.
- **Stigma Reduction:** Educate the public to reduce the social stigma and discrimination against persons affected by leprosy.
- **Integration:** Shift from vertical (exclusive leprosy clinics) to integrated services through the General Health Care (GHC) system, such as Primary Health Centers (PHCs).

3.4.3. Key Strategies and Implementation

The strategies have evolved into an active, community-based approach:

- **Active Case Detection (LCDC/FLC):** Conducting Leprosy Case Detection Campaigns (LCDC) and Focused Leprosy Campaigns (FLC) in high-endemic areas, including household surveys.
- **ASHA Involvement:** Leveraging Accredited Social Health Activists (ASHAs) for surveillance and to ensure completion of treatment (ASHA Based Surveillance for Leprosy Suspects - ABSULS).
- **Multidrug Therapy (MDT):** Free of cost 3-drug regimen (Rifampicin, Dapsone, Clofazimine) is provided to both Paucibacillary (PB) and Multibacillary (MB) cases.
- **Post-Exposure Prophylaxis (PEP):** Administering single-dose rifampicin to contacts of patients to prevent transmission.
- **Disability Prevention and Medical Rehabilitation (DPMR):** Providing self-care kits, Micro-cellular Rubber (MCR) footwear, and Reconstructive Surgeries (RCS) with a financial allowance of ₹12,000 for patients undergoing surgery.

3.4.4. Recent Initiatives and Technological Integration

- **Nikusth 2.0:** A web-based digital portal for real-time reporting, patient tracking, and drug stock management.
- **Sparsh Leprosy Awareness Campaign (SLAC):** Launched on Anti-Leprosy Day (Jan 30) to reduce stigma and promote voluntary reporting.
- **Revised Strategy (2023–27):** Aims at zero leprosy transmission by 2027, ahead of the global 2030 target.
- **Notifiable Disease (2025):** Leprosy has been declared a notifiable disease, ensuring that private and public sectors report new cases.

3.4.5. Achievements (As of 2024-25)

- **National Elimination Sustained:** India has maintained the elimination status (< 1 case per 10,000) at the national level since 2005.
- **Declining Prevalence:** The national prevalence rate reduced from 0.69 (2014–15) to 0.57 (2024–25).

- **Reduction in Disabilities:** Grade II disability among new cases dropped significantly, indicating earlier diagnosis.

3.4.6. Challenges

Despite success, challenges remain in the journey to total eradication:

- **Residual Endemicity:** Hidden cases remain in certain districts and remote regions.
- **Stigma and Discrimination:** Fear and misinformation still prevent voluntary reporting.
- **Monitoring Migration:** Tracking migrant laborers, particularly in high-prevalence areas.

3.4.7 Conclusion

The National Leprosy Control Program, now NLEP, is one of the most successful public health programs in India. Through effective management of MDT, integration with General Health Services, and the active involvement of community health workers, India has shifted from high endemicity to the brink of complete eradication.

3.5. NATIONAL MENTAL HEALTH PROGRAM

The National Mental Health Programme (NMHP) is a flagship public health initiative launched by the Government of India in 1982 to address the enormous burden of mental disorders and the acute shortage of qualified mental health professionals. It was established following consultations with experts to ensure that mental health services are available, accessible, and affordable to all, especially the vulnerable sections of society.

3.5.1. Historical Background and Evolution

- **Launch (1982):** Initiated in response to high mental illness rates (estimated 6-7% of the population) and the lack of infrastructure.
- **District Mental Health Program (DMHP) (1996):** Added as the operational arm of NMHP to decentralize services from specialized mental hospitals to community-based care, initially based on the "Bellary Model" of Karnataka.
- **Re-strategization (2003):** Focused on modernizing state mental hospitals and upgrading psychiatric wings in medical colleges/general hospitals.
- **Manpower Development (2009):** Included schemes to establish Centers of Excellence and strengthen post-graduate training in mental health specialties.

3.5.2. Main Objectives of NMHP

The NMHP operates with three key objectives:

1. **Accessibility:** Ensure minimum mental healthcare for all, particularly the most vulnerable.
2. **Integration:** Encourage the integration of mental health knowledge into general healthcare and social development.
3. **Community Participation:** Promote community involvement in mental health service development and self-help efforts.

3.5.3. Key Components and Strategies

The NMHP uses a multi-pronged approach:

- **District Mental Health Program (DMHP):** Currently implemented in over 700 districts. It provides early detection, outpatient/indoor treatment, training to general physicians, and awareness programs.

- **Tertiary Care Component:** Focuses on strengthening mental health infrastructure through the modernization of State Mental Hospitals and strengthening psychiatry departments in medical colleges.
- **Manpower Development Schemes:** Funds Centers of Excellence (25+ institutions funded) and strengthens PG departments in Psychiatry, Psychology, Social Work, and Nursing to address the professional shortage.
- **Information, Education, and Communication (IEC):** Activities dedicated to increasing awareness, reducing stigma, and promoting mental health.
- **Tele-MANAS (2022):** Launched as a 24/7 digital component to provide tele-mental health counseling and services across India.

3.5.4. Implementation Levels

- **Primary Level (PHC/CHC):** Training health workers and general doctors for basic management and identifying mental illnesses.
- **Secondary Level (District Hospital):** Providing 10-bedded in-patient facilities and specialist care.
- **Tertiary Level (Medical Colleges/State Hospitals):** Providing specialized care, research, and training.

3.5.5. Recent Initiatives

- **Tele-MANAS:** Tele-Mental Health Assistance and Networking Across States.
- **MANODARPAN:** Initiative for psychosocial support for students, teachers, and parents.
- **Kiran (1800-599-0019):** A 24/7 toll-free mental health rehabilitation helpline.
- **Mental Healthcare Act, 2017:** A progressive law that guarantees the right to access mental 6. Challenges and Limitations

3.5.6 Despite progress, the programme faces several hurdles:

- **Shortage of Professionals:** Severe shortage of psychiatrists, clinical psychologists, and psychiatric social workers.
- **Stigma:** High levels of stigma discourage people from seeking help.
- **Uneven Implementation:** Variations in state-level capacities and commitment.
- **Funding Constraints:** Limited financial allocation compared to the high burden of disease.

3.5.7. Future Directions

- **Expansion of DMHP:** Ensuring all districts have fully operational teams.
- **Digital Integration:** Scaling up Tele-MANAS and e-Sanjeevani for rural reach.
- **Rights-based Approach:** Fully implementing the Mental Healthcare Act, 2017, and focusing on rehabilitation.

3.6. NATIONAL PROGRAMME FOR PREVENTION AND CONTROL OF DEAFNESS (NPPCD)

The National Programme for Prevention and Control of Deafness (NPPCD) is a major initiative launched by the Government of India to address the high prevalence of hearing impairment and deafness in the country. Initiated in 2006-07 on a pilot basis, the program aims to mitigate the heavy burden of avoidable hearing loss through early identification, treatment, and rehabilitation.

3.6.1. Background and Rationale

- **High Prevalence:** As per WHO estimates, approximately 6.3% of the Indian population suffers from significant auditory impairment (roughly 63 million people).
- **Avoidable Loss:** Over 50% of these cases are considered preventable or treatable through medical/surgical interventions or rehabilitation.
- **Target Group:** A large percentage of the affected population consists of children (0–14 years), causing a massive loss of productivity.
- **Status:** Currently, the program is implemented in over 550+ districts across 36 States/UTs (as of 2024–2026 data).

3.6.2. Objectives of the Programme

The main objectives of the NPPCD are:

1. **Prevention:** To prevent avoidable hearing loss caused by diseases or injuries.
2. **Early Identification:** To detect, diagnose, and treat ear problems early, particularly in children.
3. **Medical Rehabilitation:** To provide rehabilitation to individuals of all age groups suffering from deafness, including the provision of hearing aids.
4. **Institutional Capacity Building:** To strengthen health infrastructure (District Hospitals, CHCs, PHCs) by providing equipment and training personnel.

5. **Inter-sectoral Linkages:** To strengthen existing connections to ensure continuous care for the deaf.

Long-term Goal: To reduce the total disease burden of hearing impairment by 25% by the end of the 12th Five Year Plan.

3.6.3. Key Components and Strategies

The program is implemented through four main components:

- **Manpower Training & Development:** Training is provided to ENT specialists, audiologists, medical officers, nurses, and grass-root workers (ASHAs/Anganwadi workers) for early identification and management.
- **Capacity Building:** Strengthening infrastructure at District Hospitals (ENT/Audiology setup), CHCs (kits worth Rs. 50,000), and PHCs (kits worth Rs. 15,000).
- **Service Provision & Rehabilitation:** Organizing screening camps for general population and school children, offering medical/surgical treatment, and fitting hearing aids.
- **Awareness Generation (IEC/BCC):** Using Information, Education, and Communication (IEC) materials to create awareness, particularly on World Hearing Day (March 3), to reduce the stigma associated with deafness.

3.6.4. Implementation Structure

- **Central Level:** The Directorate General of Health Services (DGHS) provides technical support and monitors the programme.
- **State/District Level:** The program is merged under the National Health Mission (NHM). District Hospitals are equipped with an ENT surgeon, an audiologist, an audiometric assistant, and an instructor for hearing-impaired children.

3.6.5. Services Provided

- **Universal Newborn Hearing Screening:** High-risk newborns are screened using Otoacoustic Emission (OAE) tests.
- **School Screening:** Screening of school children for ear diseases.

- **Treatment and Rehabilitation:** Free or subsidized hearing aids are provided, often in collaboration with the Ministry of Social Justice & Empowerment and NGOs.
- **Surgical Interventions:** Surgeries such as Tympanoplasty and Mastoidectomy are performed.

3.6.6. Achievements and Impact

- **Increased Screening:** The programme has seen a rise in beneficiaries. In FY 2024-25, nearly 30 lakh people were screened for deafness.
- **Rehabilitation:** Over 1.3 lakh people were referred for rehabilitation in 2024-25.
- **Improved Infrastructure:** Many district hospitals now possess functioning audiometry and ENT facilities.
- **Targeted Events:** Active observation of World Hearing Day focuses on Noise-Induced Hearing Loss (NIHL) and safe listening practices.

3.6.7. Challenges

- **Rural Coverage:** Reaching remote rural areas for comprehensive screening.
- **Device Maintenance:** Ensuring the long-term maintenance of audiometry equipment and hearing aids.
- **Shortage of Specialists:** Limited availability of audiologists in some district hospitals.

3.6.8. Future Focus Areas

- **Digital Integration:** Incorporating tele-audiology and digital screening tools.
- **Universal Screening:** Moving towards universal screening for all neonates.
- **Noise Policy:** Addressing noise-induced hearing loss through better regulation and public awareness.

3.7. UNIVERSAL IMMUNIZATION PROGRAMME (UIP)

The Universal Immunization Programme (UIP) is one of the largest public health initiatives in the world, launched by the Government of India in 1985 to reduce mortality and morbidity among children and pregnant women. It provides free vaccination against 12 vaccine-preventable diseases (VPDs) nationwide, targeting approximately 2.67 crore newborns and 2.9 crore pregnant women annually.

3.7.1. Evolution and Background

- **1978:** Initiated as the Expanded Programme of Immunization (EPI) by the WHO, adopted by India.
- **1985:** Renamed and expanded as the Universal Immunization Programme (UIP) to cover rural areas.
- **1992:** Integrated into the Child Survival and Safe Motherhood Programme.
- **1997:** Became a part of the Reproductive and Child Health (RCH) Programme.
- **2005:** Integral component of the National Rural Health Mission (NRHM).

3.7.2. Diseases Covered and Vaccines Provided

Under the UIP, vaccines are provided free of cost against 12 diseases. 11 vaccines are provided nationally, and 1 (Japanese Encephalitis) sub-nationally in endemic districts:

National Immunization Schedule (NIS) Components:

1. **Childhood Tuberculosis:** BCG (Bacillus Calmette–Guérin)
2. **Poliomyelitis:** OPV (Oral Polio Vaccine) and fIPV (fractional Inactivated Polio Vaccine)
3. **Hepatitis B:** Hepatitis B Birth dose
4. **Diphtheria, Pertussis, Tetanus:** Pentavalent (DPT+HepB+Hib) and DPT Boosters
5. **Haemophilus influenzae type B (Hib):** Pentavalent Vaccine
6. **Measles & Rubella:** MR vaccine (introduced in 2017)

7. **Rotavirus Diarrhoea:** Rotavirus Vaccine (RVV)
8. **Pneumococcal Pneumonia/Meningitis:** Pneumococcal Conjugate Vaccine (PCV)
9. **Japanese Encephalitis (JE):** In endemic districts
10. **Tetanus and Adult Diphtheria:** Td vaccine (replaces TT)
11. **Vitamin A Supplementation:** To prevent blindness and reduce mortality.
12. **COVID-19:** Included during the pandemic response.

3.7.3. Strategies and Innovations

- **Mission Indradhanush (MI):** Launched in December 2014 to accelerate full immunization coverage (aiming for 90%) by focusing on low-coverage, "hard-to-reach" areas.
- **Intensified Mission Indradhanush (IMI):** Intensified rounds to reach unvaccinated children.
- **eVIN (Electronic Vaccine Intelligence Network):** Digital technology used for real-time tracking of vaccine stocks, logistics, and temperature management at cold chain points.
- **U-WIN Platform:** Similar to Co-WIN, this platform digitally registers and tracks the vaccination status of every pregnant woman and child.
- **"Taare Zameen Par" (Night Vigil):** Special drives targeting children of nomadic populations and ragpickers.

3.7.4. Major Achievements and Impact

- **Polio-Free Status:** India was certified polio-free on March 27, 2014.
- **Tetanus Elimination:** Maternal and neonatal tetanus elimination achieved in 2015.
- **M&R Award:** India received the Measles and Rubella Champion Award in March 2024.
- **Vaccine Coverage:** Full immunization coverage has shown a steady increase, reaching over 90% in several states.

- **Mortality Reduction:** Significant decline in under-5 mortality, partly attributed to the introduction of PCV and Rotavirus vaccines.

3.7.5. Implementation Structure

- **Nodal Ministry:** Ministry of Health & Family Welfare (MoHFW), Govt. of India.
- **Operationalization:** National Health Mission (NHM) and State Health Societies.
- **Field Level:** Implemented by ASHAs, ANMs, and Anganwadi workers.
- **Monitoring:** SIMS (Surveillance of Vaccine Preventable Diseases) portal and HMIS (Health Management Information System).

3.7.6. Challenges

Despite high success rates, the program faces challenges including:

- **Dropout Rates:** High dropout rates between the first and subsequent vaccine doses in some areas.
- **Urban Slum Coverage:** Difficulties in vaccinating the migrant population in urban areas.
- **Cold Chain Maintenance:** Need for continuous monitoring of equipment (ILR/Deep Freezers) in remote areas.
- **Data Accuracy:** Gaps between reported coverage and independent surveys.

The Universal Immunization Programme continues to evolve, incorporating new vaccines and technologies to meet the goal of 100% coverage and protect every child from preventable diseases.

3.8. NATIONAL PROGRAMME FOR CONTROL OF BLINDNESS (NPCB)

The National Programme for Control of Blindness (NPCB) was launched by the Government of India in **1976** as a 100% centrally sponsored scheme. Recognizing that a significant portion of blindness in India was avoidable or treatable, the programme was initiated to reduce the prevalence of blindness from 1.4% (1974) to 0.3% by the year 2020.

In 2017, to address all forms of visual impairment rather than just total blindness, the programme was renamed the **National Programme for Control of Blindness and Visual Impairment (NPCBVI)**.

3.8.1. Key Objectives and Goals

- **Reduce Prevalence:** Lower the prevalence of blindness to 0.25% by 2025.
- **Reduce Backlog:** Eradicate the backlog of avoidable blindness through identification and treatment of curable cases.
- **Infrastructure Strengthening:** Upgrade and develop eye care infrastructure at primary, secondary, and tertiary levels (Regional Institute of Ophthalmology, Medical Colleges, District Hospitals, and Vision Centres).
- **Human Resource Development:** Train ophthalmic surgeons, paramedical ophthalmic assistants (PMOA), and nurses in modern surgical techniques (IOL/Phaco).
- **Public Awareness:** Enhance community awareness through Information, Education, and Communication (IEC) activities.
- **Public-Private Partnership:** Involve NGOs and private practitioners in providing free or subsidized eye care services, especially in rural and underserved areas.

3.8.2. Major Causes of Blindness Addressed

The programme targets the primary causes of blindness, with a heavy emphasis on cataract management:

1. **Cataract (62.6%):** The main focus, aiming for high-quality surgical intervention.
2. **Refractive Errors (19.70%):** Providing spectacles to children and elderly individuals.
3. **Corneal Blindness (0.90%):** Promoting eye donation and eye bank services.

4. **Glaucoma (5.80%):** Management and screening.
5. **Diabetic Retinopathy & ROP:** Focusing on lifestyle-related blinding diseases and Retinopathy of Prematurity.
6. **Childhood Blindness:** Nutritional (Vitamin A) and infection control.

3.8.3. Key Components and Activities

- **Cataract Surgery & Support Services:** Promoting the shift from camp-based approaches to fixed-facility surgical approaches, specifically using **Intra Ocular Lens (IOL) implantation**.
- **School Eye Screening (SES):** Screening school children for visual defects and providing free spectacles to BPL (Below Poverty Line) families.
- **Eye Banking:** Establishing eye banks and eye donation centres to promote corneal transplantation.
- **Vision Centres:** Setting up vision centres at PHC (Primary Health Centre) and CHC (Community Health Centre) levels to provide comprehensive primary eye care.
- **IEC Activities:** Conducting campaigns during National Eye Donation Fortnight (Aug 25-Sept 8) and World Sight Day.

3.8.4. Implementation Structure

The programme follows a decentralized approach under the National Health Mission (NHM):

- **National Level:** Nodal Cell under the Ministry of Health and Family Welfare (DGHS).
- **State Level:** State Health Society (Blindness Division).
- **District Level:** District Health Society (DHS), headed by the District Collector, responsible for monitoring and implementing the programme in their jurisdiction.

3.8.5. Recent Initiatives (Netra Jyoti Abhiyan)

- Since June 2022, a special campaign, **"Netra Jyoti Abhiyan,"** has been implemented to address the backlog of cataract surgeries in people aged 50 and above, with a target of conducting 27 lakh surgeries annually.
- **Tele-Ophthalmology:** Expanded to improve accessibility in hilly and difficult terrains.

3.8.6. Achievements

- Prevalence of blindness has been significantly reduced, dropping from 1% (2007) to 0.36% (2019).
- India currently performs over 5 million cataract surgeries annually.
- Significant increase in IOL implantation rates (over 93%).

3.8.7. Challenges

- Uneven access to services in remote or tribal regions.
- Shortage of trained paramedical ophthalmic assistants.
- Low rates of eye donation, leading to a shortage of donor corneas.

3.9. PULSE PLOIO PROGRAMME

The Pulse Polio Programme is a massive public health initiative launched by the Government of India in 1995 to eliminate poliomyelitis (polio) by vaccinating all children under the age of five years against the poliovirus. The program was initiated following the World Health Assembly's resolution in 1988 for global polio eradication.

3.9.1 Aspects of the Pulse Polio Programme:

- **Launch and Objective:** The program was launched on 2nd October 1994 in Delhi as a pilot, followed by a nationwide launch in 1995 to achieve 100% coverage under the Oral Polio Vaccine (OPV).
- **Target Group:** Children in the age group of 0-5 years are administered polio drops during national and sub-national immunization rounds.

3.9.2 Methodology:

- **Booth Strategy:** Vaccination booths are set up across the country on designated Sundays ("Polio Ravivar").
- **House-to-House Vaccination:** Teams visit homes to ensure that children missed at booths are vaccinated.
- **Transit Vaccination:** Special booths are established at transit points like railway stations, bus stands, and airports to cover children on the move.
- **Frequency:** Generally, two National Immunization Days (NID) are conducted annually, usually in January and February, to vaccinate approximately 170 million children.
- **"Do Boond Zindagi Ki":** The campaign is famously known by this slogan (Two Drops of Life).

3.9.3 Achievements and Milestones:

- **Polio-Free Certification:** India was declared polio-free by the World Health Organization (WHO) on March 27, 2014, after three years without a reported case.
- **Last Case:** The last reported case of wild poliovirus in India was on 13th January 2011, in Howrah, West Bengal.

- **Impact:** The program significantly reduced polio cases from an estimated 50,000–200,000 annually prior to 1995 to zero.
- **Global Recognition:** The success in India is considered one of the most significant public health achievements, contributing to the polio-free certification of the entire WHO South-East Asia Region.

3.9.3. Sustaining the Success:

Despite being polio-free, India continues to run the Pulse Polio Programme to prevent the re-importation of the virus from neighboring endemic countries like Pakistan and Afghanistan.

- **Surveillance:** Strict vigilance is maintained through Acute Flaccid Paralysis (AFP) surveillance and environmental surveillance (sewage sampling).
- **Vaccine Policy:** The switch from Trivalent OPV (tOPV) to Bivalent OPV (bOPV) and the introduction of the Inactivated Polio Vaccine (IPV) are part of the polio endgame strategy.

3.9.4 Challenges:

- **Importation Risk:** The presence of poliovirus in neighboring countries poses a persistent threat.
- **Vaccine Fatigue:** Complacency among the public and the system due to the absence of cases.
- **Reaching High-Risk Areas:** Reaching migrant populations and in remote or inaccessible areas remains a challenge.

The program's success is a result of the combined efforts of the government, international partners like WHO, UNICEF, Rotary International, and the participation of countless volunteers.