Public Health Institutes of the World
IANPHI

Dr Simmi Tiwari

Joint Director, Centre for One Health, National Centre for Disease Control, India

One Health initiatives in India

One Health Initiatives in India

IANPHI Asia Network Webinar - One Health: 4 December 2024

Dr Simmi Tiwari

[MBBS. DNB (SPM),MBA(HCA),PGDHHM]

Joint Director & Head

Centre for One Health

National Centre for Disease Control

Directorate General of Health Services

Ministry of Health & Family Welfare
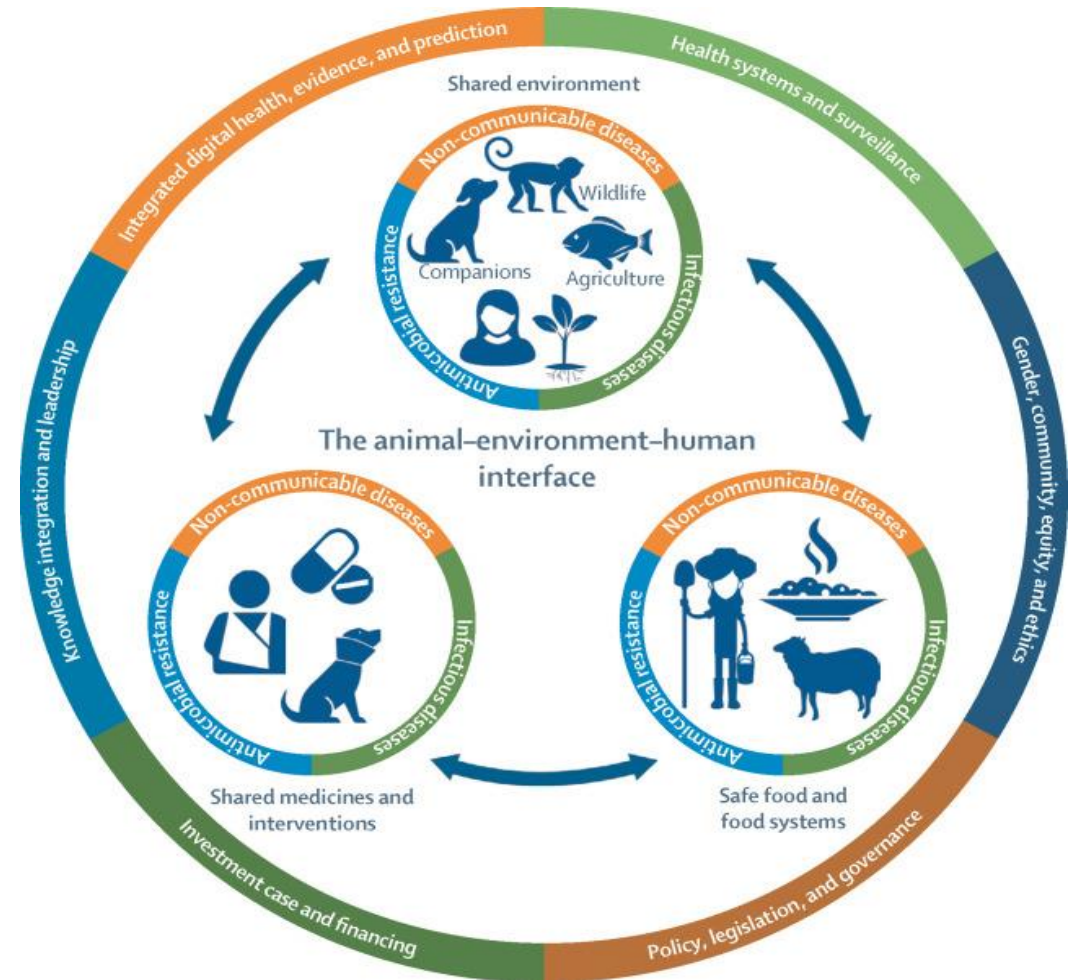
Government of India

Definition :

- *One health is an integrated unifying approach to optimize the health of people, animals, plants and ecosystems, recognizing the interdependency. The aim of the approach is to mobilize multiple sectors, disciplines and communities, foster wellbeing and tackle threats to health and ecosystems.*

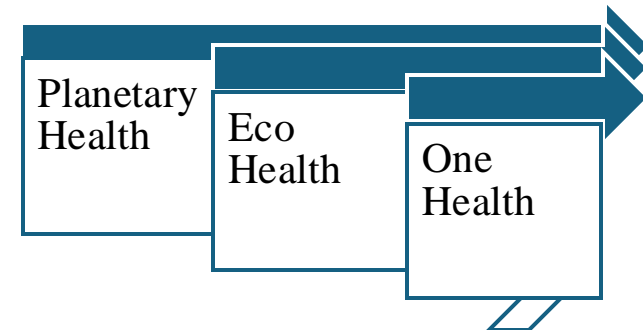*(WHO-WOAH-FAO-UNEP Quadripartite : JPA-OH)*

The Core Domains of One health includes-
- *Zoonoses,*
- *AMR,*
- *Food Safety*
- *Climate and Health*

- **Hippocrates,** Greek physician, wrote "Airs, Waters, and Places" – the harbinger of One Health Concept

- 19th century **Dr Rudolf Virchow-** 'Between animal and human medicine there is no dividing line—nor should there be.

- **Dr William Osler-** studied the links between human and animal health

- **Indian Scenario-** Bhore Committee Constituted in 1946- suggested that "**Health and Development are interdependent**"

- 2004: Human and animal health experts at a symposium convened by **Wildlife Conservation Society** extends the concept of 'One Medicine' to 'One Health, One World'

Planetary Health

Eco Health

One Health

One Health Programs in India

National One Health Mission- DHR/ICMR and PSA (2024)

National One Health Programme for Prevention and Control of Zoonoses (NOHP-PCZ) (2013)

National Programme on Antimicrobial Resistance (AMR) Containment (2013)

National Programme on Climate Change & Human Health (NPCCHH) (2019)

IDSP/IHIP – Digital Surveillance of 40+ Diseases Conditions (2004)

IHR – 2005 Implementation with Multisectoral One Health Approach (2007)

Rabies (2013), Leptospirosis (2013) and Snakebite (2022) Programs

Multisectoral One Health Workforce Development by NCDC&DAHD –Sector Connect (2007, 2023)

 DAHD with Bill & Melinda Gates Foundation– (DAHD, MoFAHD), Animal Pandemic Preparedness Initiative of DAHD (2021)

Ministry of Science and Technology – MoS&T, One Health' consortium launched October 2021 (DBT – MoST)
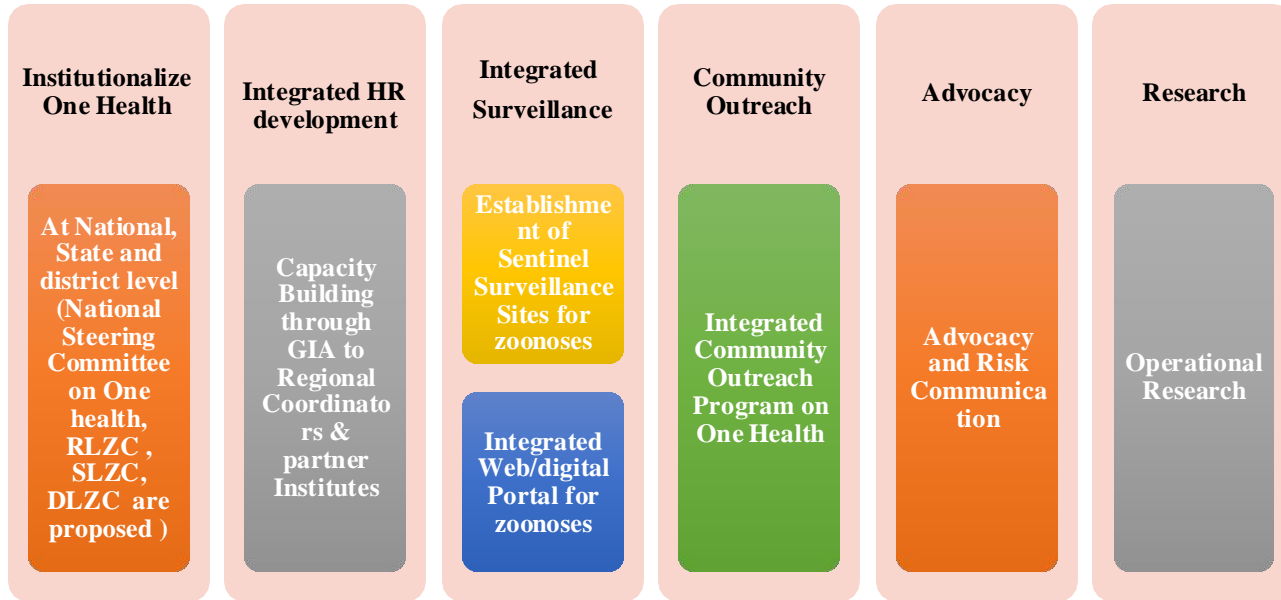
Mandate of Center for One Health

1. **Centre for One health has 8 Divisions**
2. **Implementation of National programs**
   - **National One Health Program For Prevention & Control of Zoonoses**
   - **Programmes with component under NHM**
     - **National Rabies Control Program**
     - **Program for prevention and Control of Leptospirosis**
     - **National Programme for Prevention & Control of Snakebite Envenoming 2. Out break Investigations**
3. **Teachings and Trainings (PGs, MPH, EIS programme)**
4. **Research**

Strategies

- **Capacity Building**
- **Strengthen laboratory diagnostics**
- **Strengthening Surveillance**
- **Information, Education & Communication**
- **Intersectional coordination**
- **Operational Research**

National One Health Programme for Prevention & Control of Zoonoses

Institutionalize One Health	Integrated HR development	Integrated Surveillance	Community Outreach	Advocacy	Research
At National, State and district level (National Steering Committee on One health, RLZC, SLZC, DLZC are proposed)	Capacity Building through GIA to Regional Coordinators & partner Institutes	Establishment of Sentinel Surveillance Sites for zoonoses / Integrated Web/digital Portal for zoonoses	Integrated Community Outreach Program on One Health	Advocacy and Risk Communication	Operational Research

NETWORK OF LABORATORIES

- VRDL – ICMR
- BSL-3 LAB NETWORK- ICMR NOHM
- SSSZ- NOHP-PCZ
- RABIES/ LEPTOSPIRPIS LAB NETWORK
- INFLUENZA LAB NETWORK
- INSACOG LAB NETWORK
- VETERINARY SECTOR / ICAR LABS ACROOS INDIA
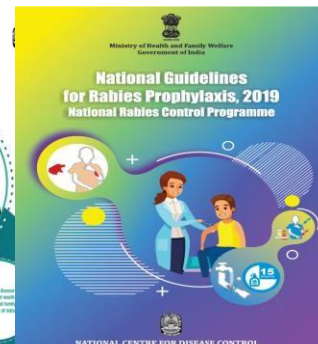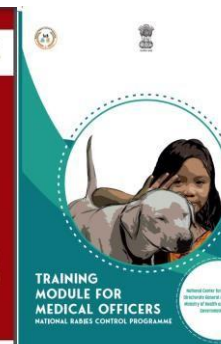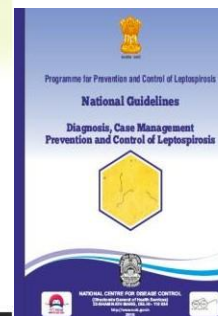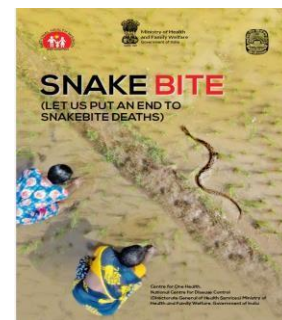- MoSt- CSIR / DBT lab Network

IEC and Guidelines

Video
- Rabies
- NIPAH
- Scrub Typhus
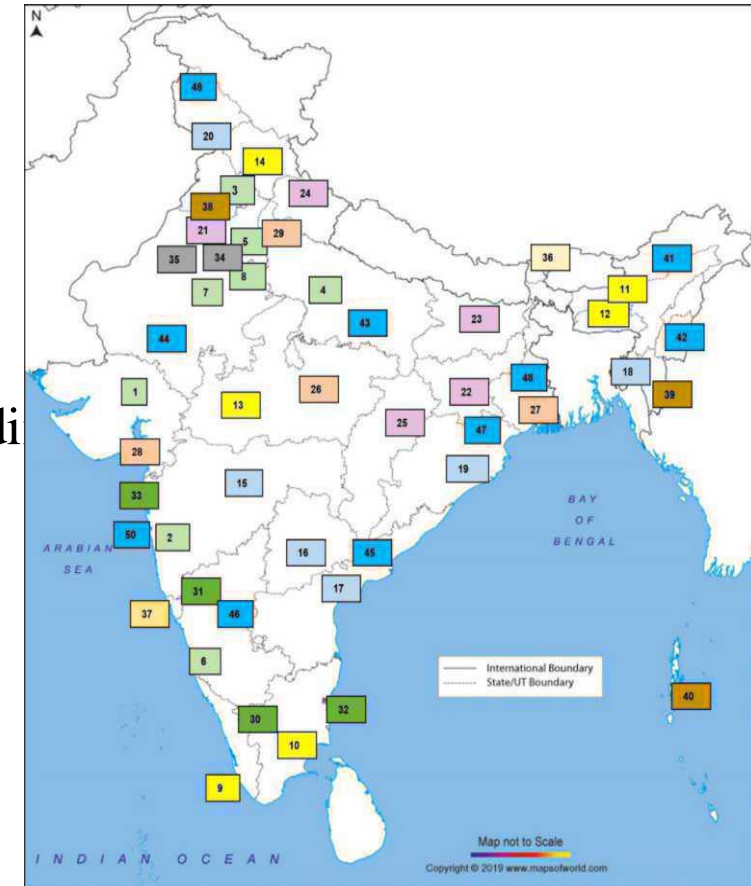- Brucellosis
- Snakebite
- KFD, CCHF
- Pet ownership

Audio and Radio Jingles
- Rabies
- Leptospirosis
- Scrub Typhus
- Brucellosis
- Snakebite
- KFD, CCHF

National Action Plan on AMR

- Developed in 2017 in alignment with Global action plan

- Many intersectoral activities through NACA

- NAP AMR coordination: no dedicated manpower or funding

- Development of NAP AMR 2.0 (2024-2028):

  ❖ Whole of government approach to contain AMR, dedicated unit and funding within each sector

  ❖ NAP-AMR secretariat/coordination unit to be established at NCDC

  ❖ Activities to be integrated with existing programmes:

  - laboratory/hospital strengthening programmes

  ❖ Intersectoral coordination & collaboration through One health framework

  ❖ Research activities on AMR –ICMR and Other institutes

National Program on Climate Change & Human Health (NPCCHH)

- "National Health Mission" under the Prime Ministers' Council on Climate Change

- "National Programme on Climate Change and Human Health" under NHM – Initiated in 2019

Ongoing Focus :
- Air Pollution and Health
- Extreme Heat and Health
- Low Carbon and Resilient Healthcare Infrastructure

Initiated activities in other areas :
- Extreme Weather Events and Health
- Water and Health
- CC and VBDs
- CC and Mental Health

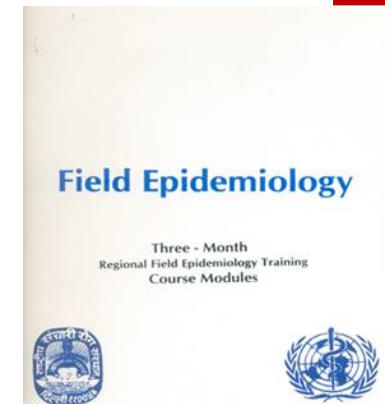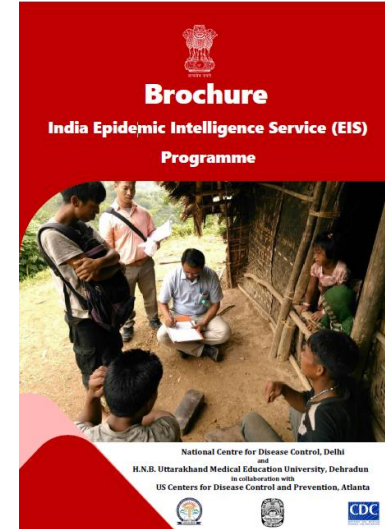- Structural framework in States and Districts :

  - All states and districts have designated programme officers in health departments

  - State and District level Multi-sectoral Taskforce and State Governing Body

  - 34 States developed "State Action Plans on Climate Change and Human Health"

  - 220 District Officers trained in 2024 to draft "District Action Plan on CC and Human Health"

Public Health Workforce Development

Field Epidemiology Trainings

- **India EIS** (TEPHINET accredited)

- **FETP for Medical Officers of WHO-SEARO**

- **FETP for Paramedics of WHO-SEARO**

- **Training of Officers from Regional Directorates**

- **Master of Public Health (MPH)- Field Epidemiology:**

- **Intermediate FETP in collaboration with NIPHTR, Mumbai**

Brochure
India Epidemic Intelligence Service (EIS) Programme

National Centre for Disease Control, Delhi
and
H.N.B. Uttarakhand Medical Education University, Dehradun
in collaboration with
US Centers for Disease Control and Prevention, Atlanta

Field Epidemiology

Three - Month
Regional Field Epidemiology Training
Course Modules

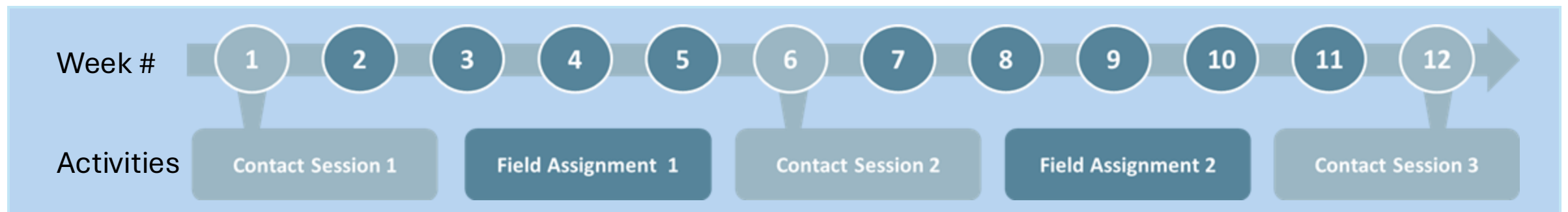# SectorConnect: Field Epidemiology Programme in One Health (FEPOH)

Program structure and content:

- 3-months in-service training

- One health disease surveillance and joint outbreak management

- Mentored field assignments

- Learning management system

Target audience: Multisectoral district officers

- Surveillance officers
- Epidemiologists
- Microbiologists
- VBD officers
- Veterinary officers

- Wildlife veterinarians
- Airport and seaport health officers
- Food safety officers
- Medical entomologists

Learning by doing together

Week #	1	2	3	4	5	6	7	8	9	10	11	12
Activities	Contact Session 1		Field Assignment 1			Contact Session 2		Field Assignment 2			Contact Session 3	

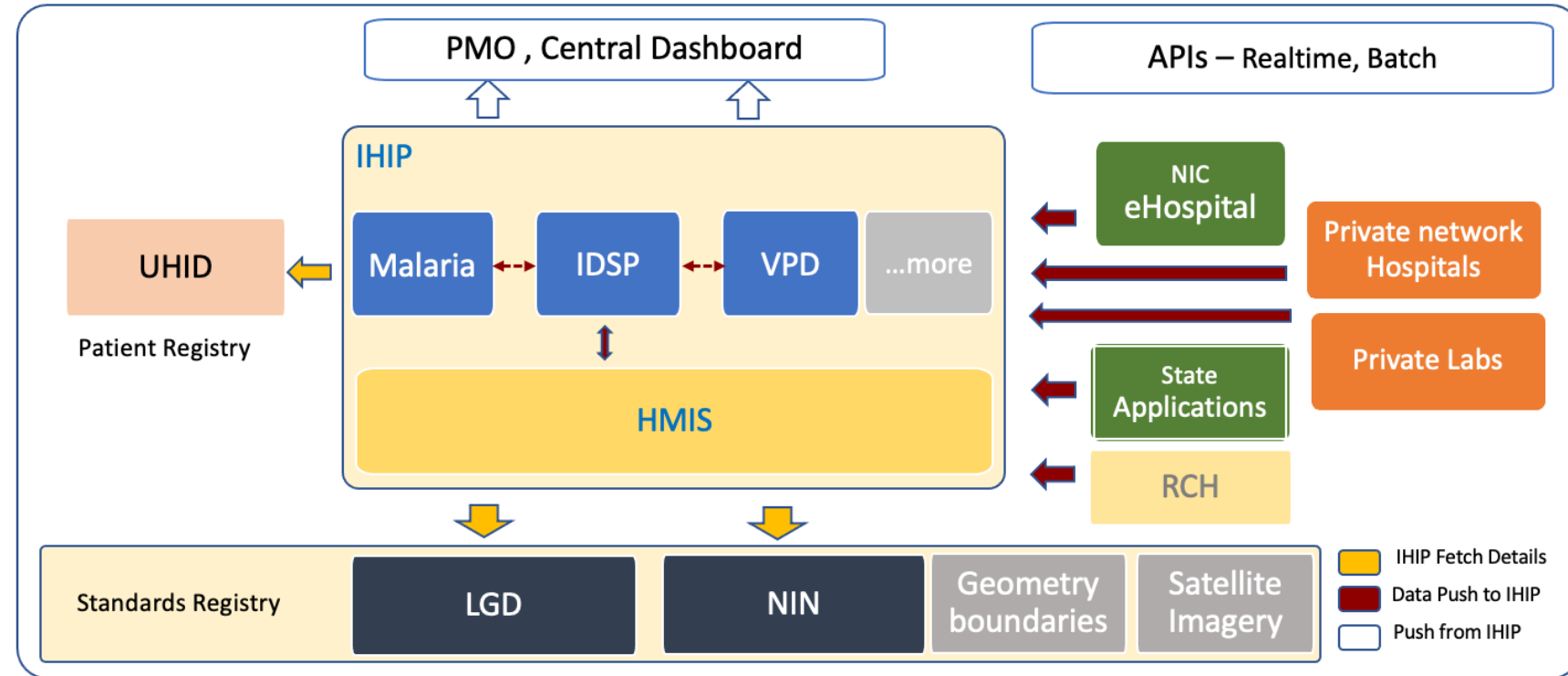# Integrated Disease Surveillance Program (IDSP)

Background

o   Outbreaks during 1990s: necessitated a surveillance and response system

o   **NSPCD**- launched in **1997-98**

o   Integrated Disease Surveillance Programme (**IDSP**)- launched in November **2004** with World Bank assistance

o   Since the 12th Plan (2012-17) IDSP has **continued under NHM**

o   In **2021** IDSP reporting transitioned to **Integrated Health Information Platform (IHIP)**

Objectives

o   To detect the **early warning signals** of impending outbreaks of selected communicable diseases

o   Initiation of timely and effective **public health actions**

o   Creation of trained cadre of responders at the District, State & National levels (**Rapid Response Teams**)

o   Reducing **mortality and morbidity** due to communicable disease outbreaks

o   Three levels of data collection

▪   Syndromic (S form) by ANMs
▪   Presumptive (P form) by doctors at health facilities
▪   Laboratory (L form) by laboratories

IHIP- API Based Integration

- Integration within IHIP

- Integration with other Hospital and Lab systems

- Integration with UHID – a new initiative, authentication-based record sharing

- Directions from MoH/PMO for Integration across programs

OH Stakeholders – Government	Development Partners

Ministry of Health & Family Welfare
Ministry of Agriculture & Farmer's Welfare
Ministry of Tribal Affairs
Ministry of Panchayti Raj
Ministry of Environment, Forest & Climate Change
Ministry of Science & Technology;
Ministry of Earth Sciences;
Ministry of Home Affairs;
Department of Space; Food Safety & Standards
Authority of India;
NITI Aayog
Indian Council of Medical Research.
Indian Council of Agriculture Research

State Government / Urban and Rural Governance Bodies