
Considerations for Technology Adoption & Regulations for NCDs and Mental Health



Insights from Indian National Health System

National Health Mission (NHM)

2005: National Rural Health Mission (NRHM), 2012 : Renamed as National Health Mission (NHM)
2013: National Urban Health Mission (NUHM)

To provide technical and financial support to States to strengthen health systems

To bring sharper focus on high focus States and rural population, particularly marginalized and vulnerable population

Architectural correction through integration of vertical programmes, decentralization and communitization

Main objective is to support the States/UTs towards provision of **universal access to Equitable, Affordable and Quality** healthcare services, accountable and responsive to people's needs, with effective **inter-sectoral convergent action** to address the wider **social determinants of health**.



Institutional Mechanism: NHM

Mission Steering Group (MSG) chaired by the Union Minister of Health & Family Welfare

Empowered Program Committee (EPC) chaired by the Union Secretary for Health & Family Welfare

State Health Mission chaired by the State Chief Minister

State Health Society chaired by the Chief Secretary

District Health Mission chaired by the Chairman Zilla Parishad

District Health Society chaired by the District Collector/District Magistrate/CEO Zilla Parishad

Pools under National Health Mission (NHM)

NRHM & NUHM- Health System Strengthening (HSS) Pool

Ayushman Bharat Health & Wellness Centre (AB-HWCs)

Free Essential Drugs

Free Essential Diagnostics

National Ambulance Service (NAS) & Mobile Medical Units (MMUs)

Quality Assurance

Untied Fund

Human Resource for Health

Infrastructure Maintenance Pool

RCH Flexi-pool

Reproductive Maternal Newborn Child Adolescent Health & Nutrition (RMNCAH+N)

Intensified Pulse Polio Programme Immunization (IPPI) & Routine Immunization (RI)

Rashtriya Bal Swasthya Karyakram (RBSK)

Rashtriya Kishor Swasthya Karyakram (RKSK)

Communicable Disease (CD) Programme Pool

TB Elimination Programme

Vector Borne Disease Control Prog.

Leprosy Elimination Prog.

Integrated Disease Surveillance Programme

Viral Hepatitis Control Programme

Non Communicable Disease (NCDs) programmes Pool

Prevention & Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke

Control of Blindness and Deafness

Mental Health Programme

Oral Health Programme

Programme for Prevention and Control of Fluorosis (NPPCF)

Tobacco Control

Care of Elderly and Palliative Care

Pradhan Mantri National Dialysis Programme

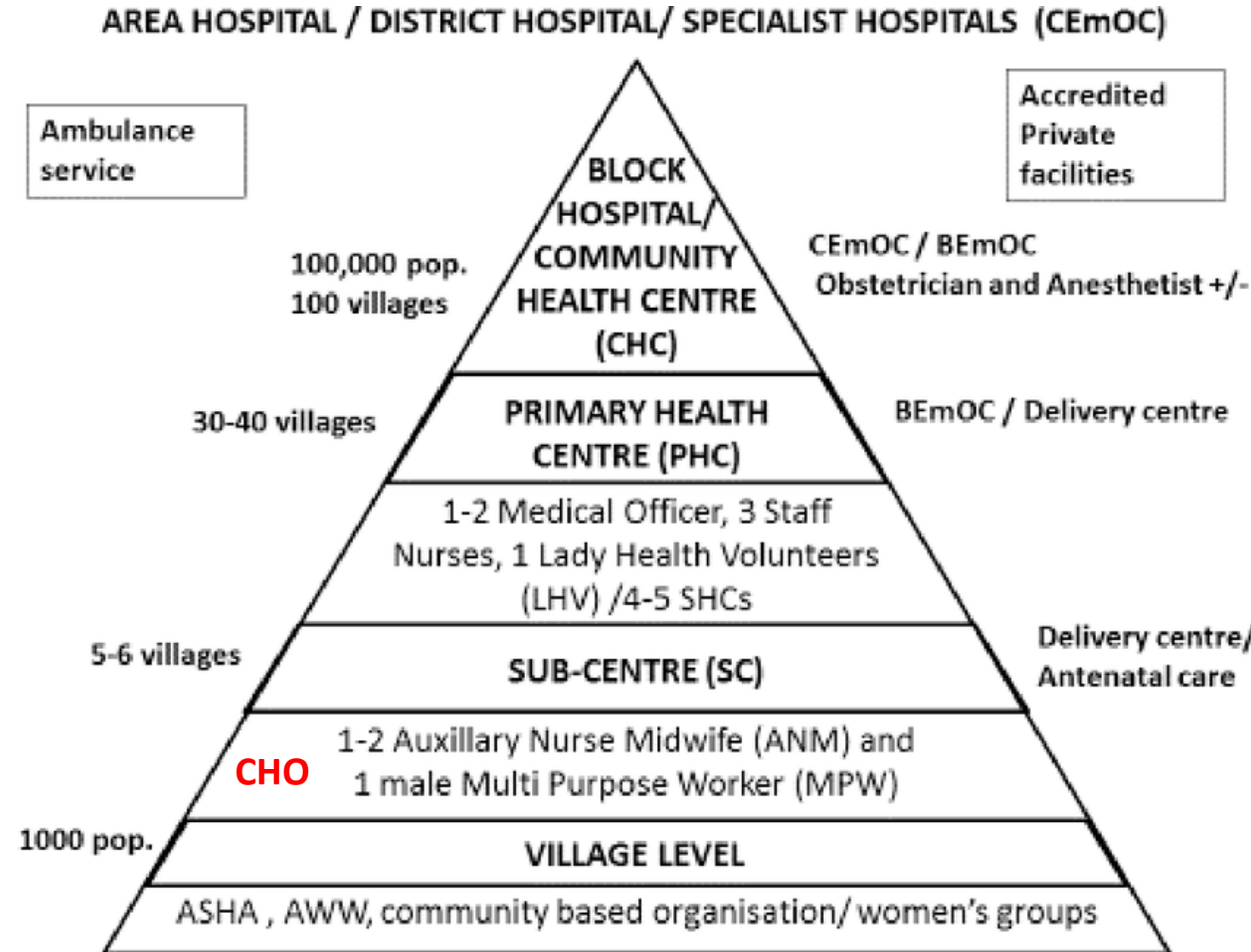
Rural Healthcare System in India

Rural Health care system in India

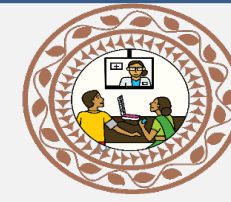
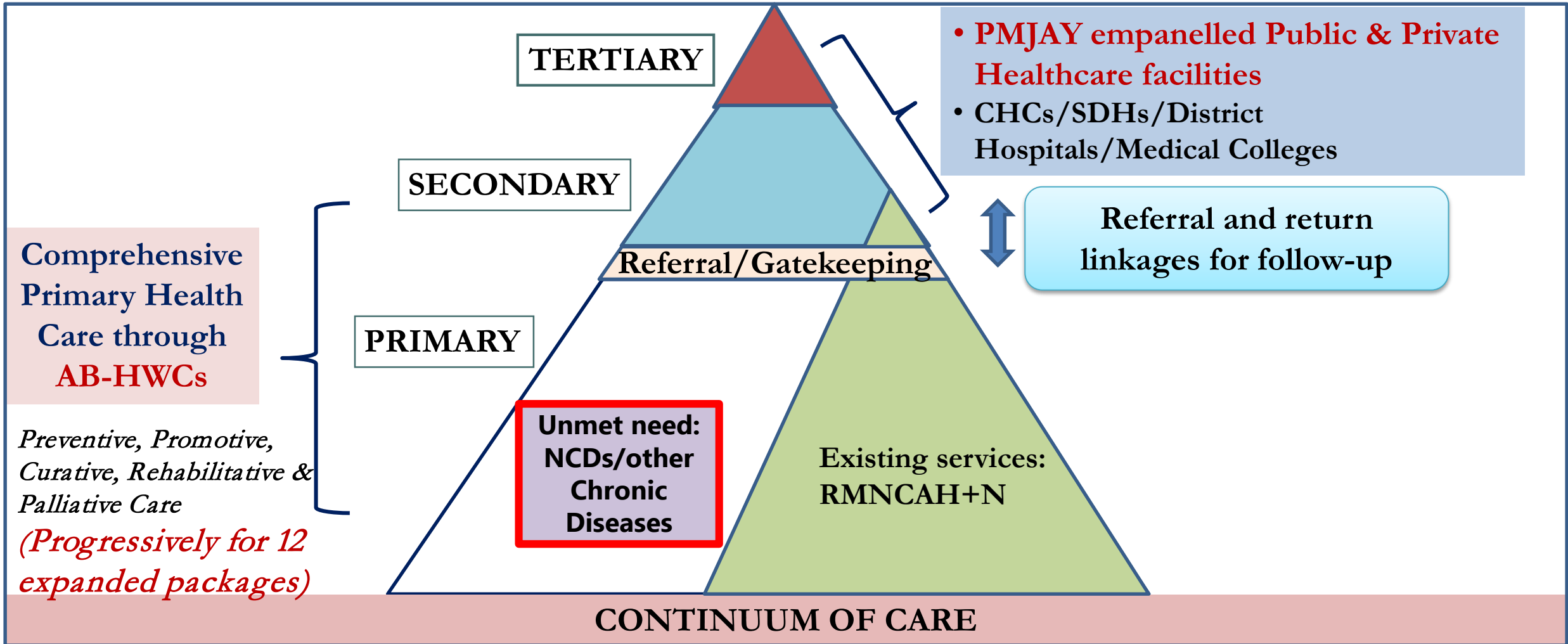
□ The health care infrastructure in rural areas has been developed as a three tier system and is based on the above population norms.

Health Facility	Population Norms	
	Plain Area	Hilly/Tribal/Difficult Area
Sub-Centre	5000	3000
Primary Health Centre	30,000	20,000
Community Health Centre	1,20,000	80,000

- **Urban Polyclinic** – 2.5 L – 3 L population
- **SDH/AH/RH** – 2L population
- **District Hospital** – 2L to 30 L population



Universal Health Coverage : Ayushman Bharat



Key Reforms at Ayushman Arogya Mandir

Infrastructure

Space for OPD, dispensing medicines & Wellness sessions

Expanded & free service delivery

From existing Reproductive & Child health to 12 Health care packages

Robust IT System

AB-AAM portal
CPHC-NCD app

Continuum of care- Telehealth

Improved referral and use of telemedicine through e-sanjeevani

Community mobilization & health promotion

Community connect through health promotive behavior through VHSNC/MAS/JAS

Expanded Human Resources

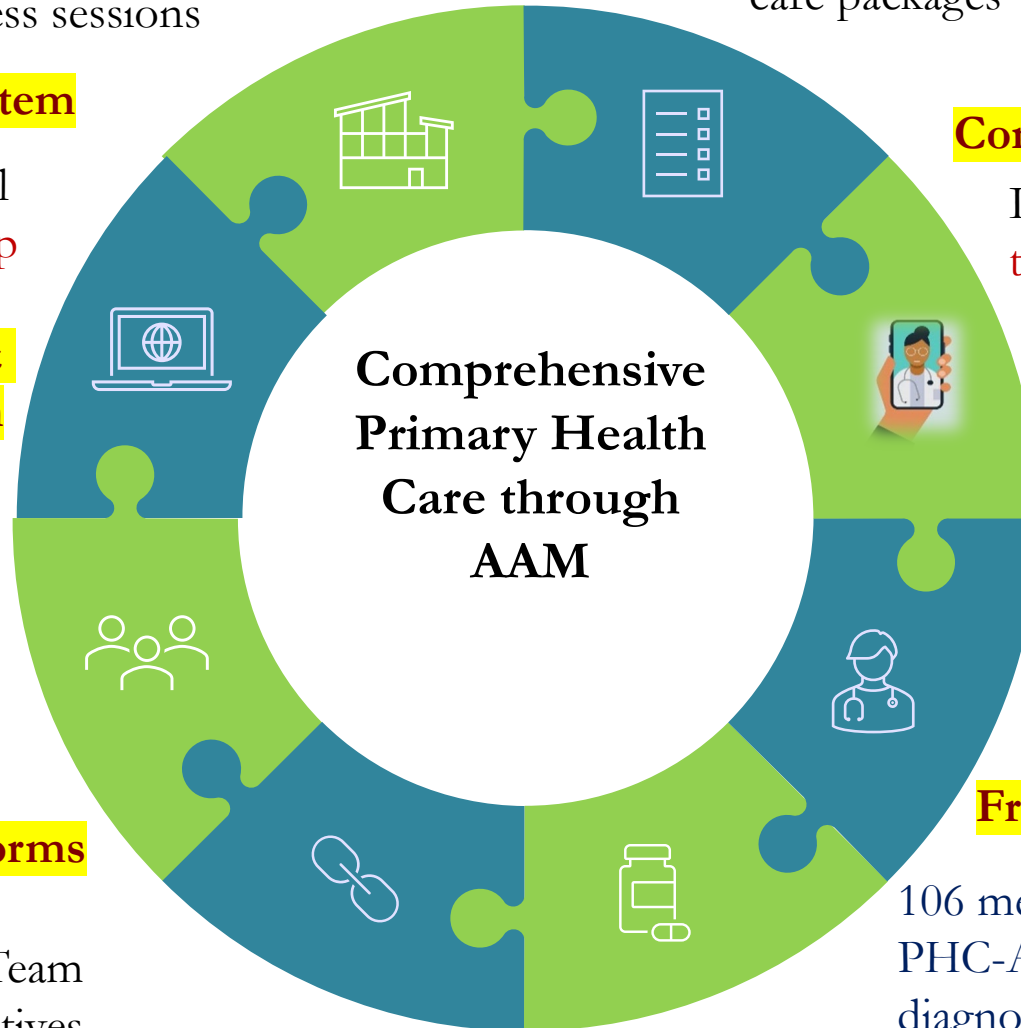
Team of Community Health Officer (CHO), two MPWs- Male & Females & ASHAs at SHC-AAM.

Provider payment reforms

Performance linked payment & Team based incentives

Free Medicines and Diagnostics

106 medicines at SHC-AAM, 172 medicines at PHC-AAM
14 diagnostics at SHC-AAM, 63 diagnostics at PHC-AAM



Expanded Packages of Services



Care in Pregnancy & Childbirth



Neonatal & Infant Healthcare Services



Childhood & Adolescent Healthcare Services



Reproductive & Family Planning Services



Management of Communicable Diseases



Outpatient Care for Acute Simple Illness



Screening Prevention & Control of NCDs



Eye & ENT Care



Oral Care



Mental health Care



Emergency Care



Elderly & Palliative Care

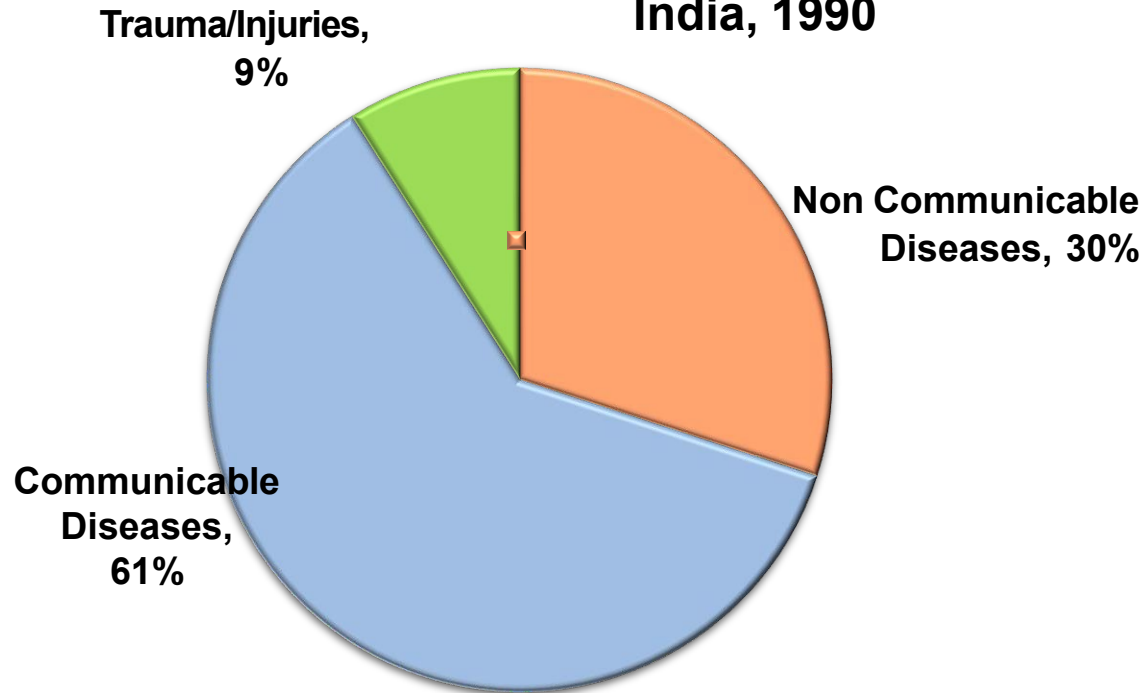
POPULATION BASED APPROACH

BURDEN OF NCDs IN INDIA

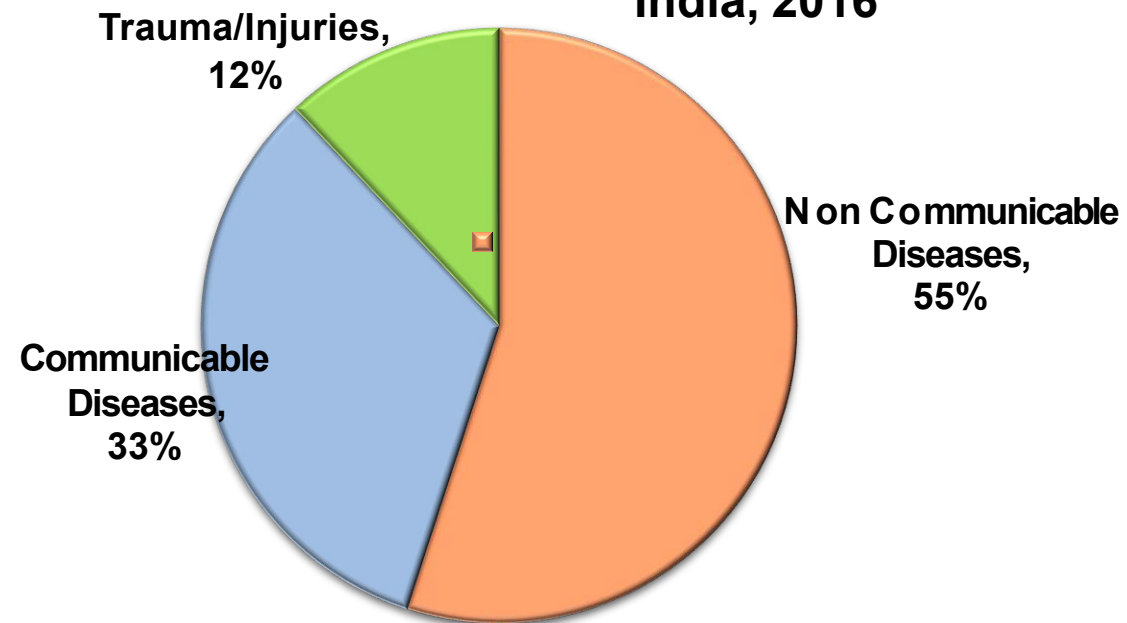
India is experiencing an epidemiological transition and the burden of NCDs is rising.

Epidemiological Transition

Disease Burden in India, 1990

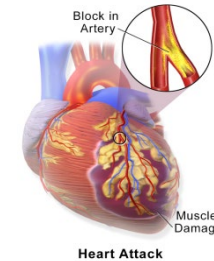
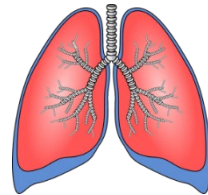
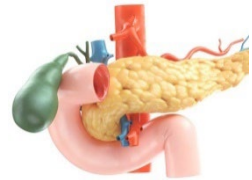


Disease Burden in India, 2016



National Programme for Prevention & Control of Non-Communicable Diseases (NP NCD)

Estimated Deaths (WHO) Global: 74%; India: 63%



**Cardio-
Vascular**
(Hypertension)

Diabetes

**Chronic
Kidney**

COPD & Asthma

Liver
(Non-alcoholic)

Cancer
(Oral, Breast &
Cervical)

STEMI

Stroke

36

State NCD
cell

753

District
Covered for
NCD

753

District NCD
Clinic

6237

CHC NCD
clinic

355

District Day
Care Centre

219

District
Cardiac Care
Units

20

Tertiary Care
Cancer
Centres

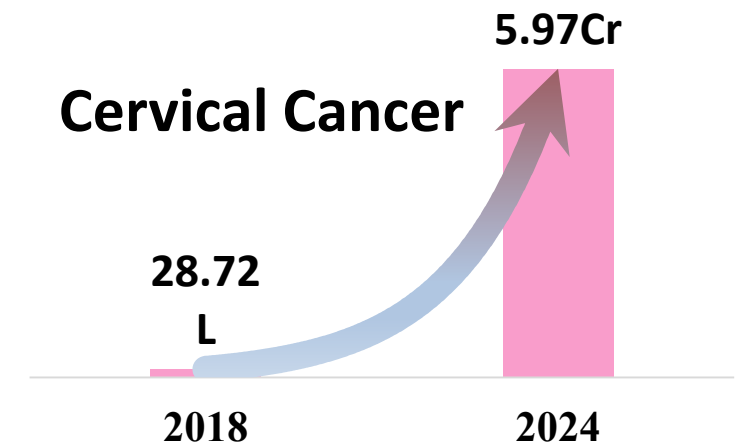
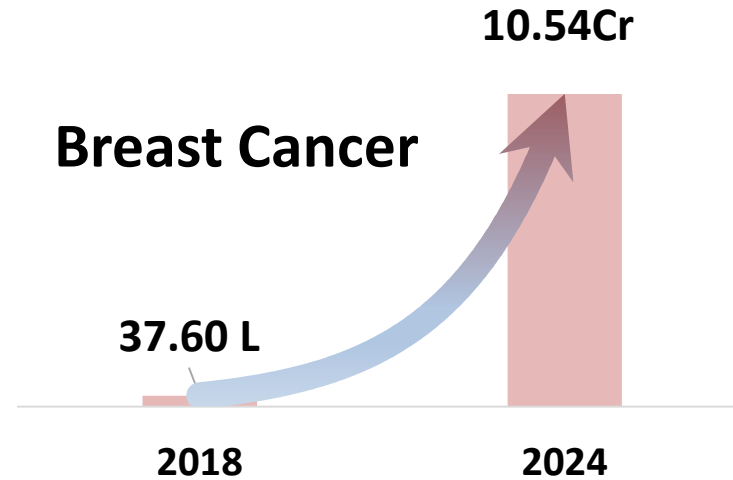
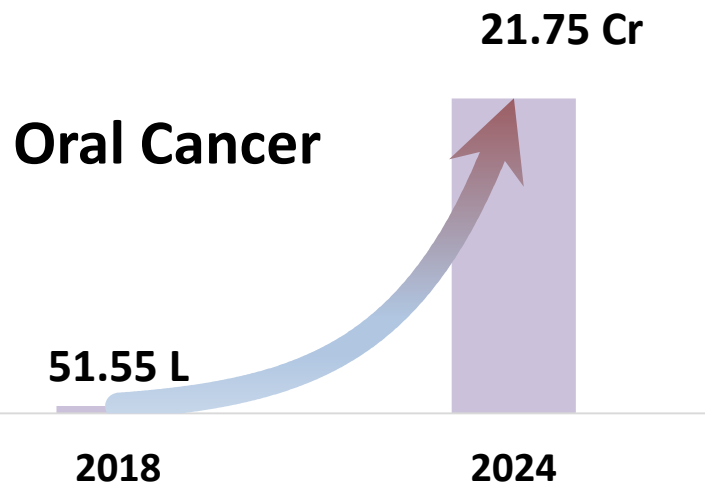
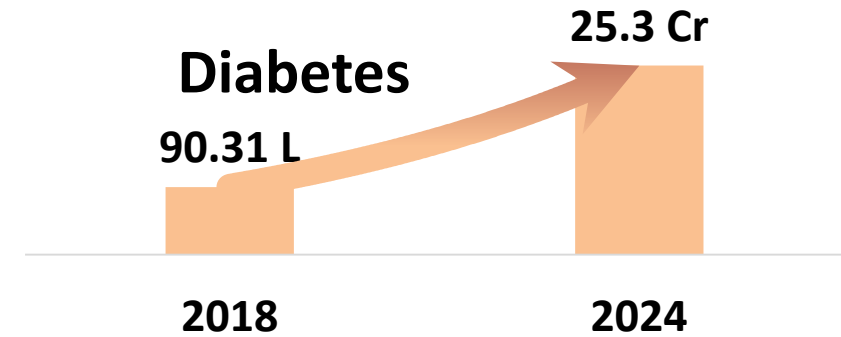
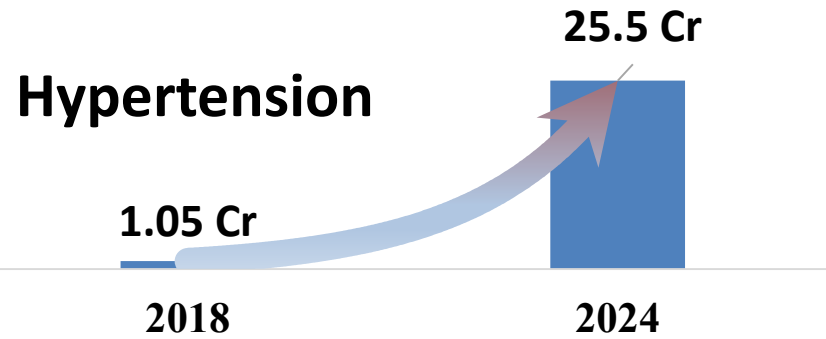
19

State Cancer
Institutes

National NCD Portal: Enrolled (30+): 38.25 Cr, Total Screened: 33.64 Cr for 5 common NCDs.

Significant achievements (As on 31st May 2024)

33.64 Cr. Screenings of common NCDs at Ayushman Arogya Mandir



75 BY 25 INITIATIVE

Ayushman Ka Amrit Mahotsav

75 million
people with
hypertension or diabetes
on standard care by
2025

Roadmap to scale up hypertension and diabetes services in primary health care

ENABLERS



National Health Policy, 2017



Ayushman Bharat Health and Wellness Centre (AB HWC)



National Programme for the Prevention and Control of Non-Communicable Diseases



Free Drugs Service initiative and Free Diagnostics Service



Ayushman Bharat Digital Mission



Indian Public Health Standards (IPHS), 2022



National NCD Portal

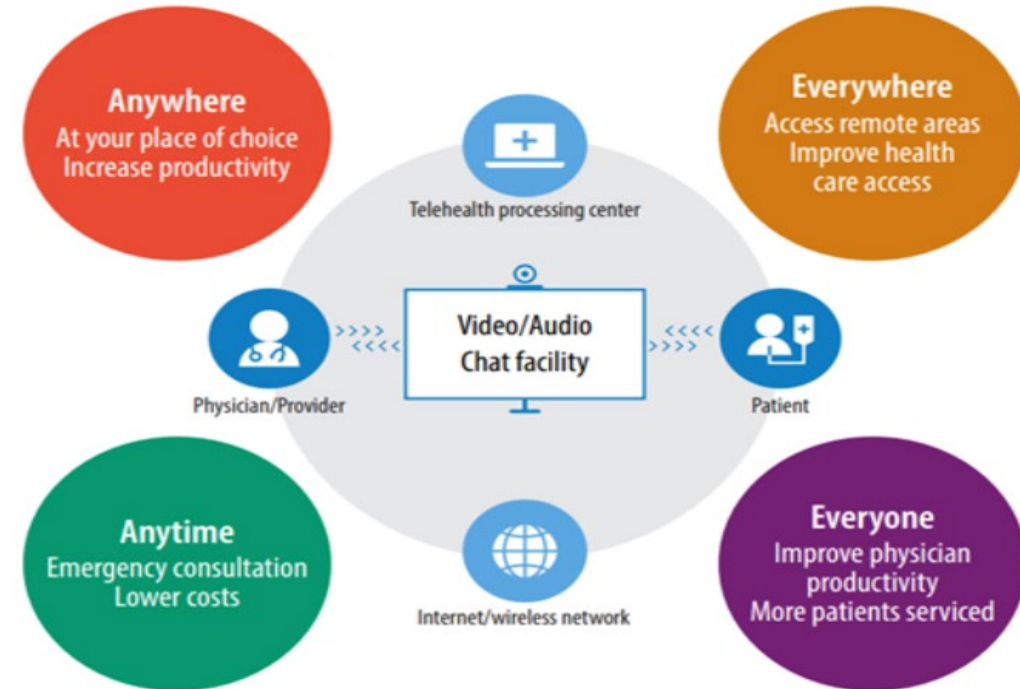
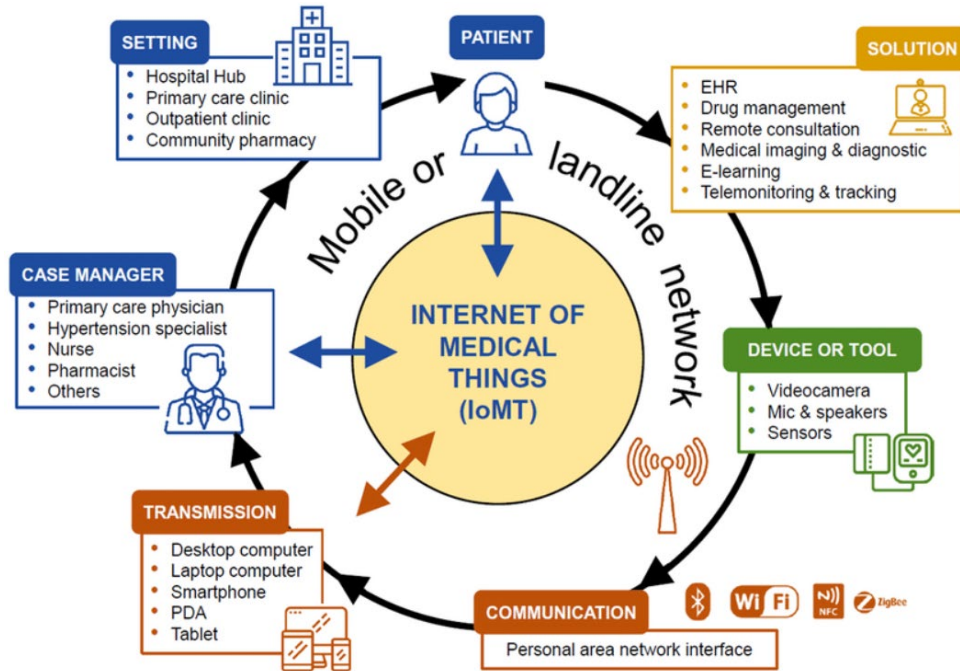


e- sanjeevani (Teleconsultation)

TOOLS



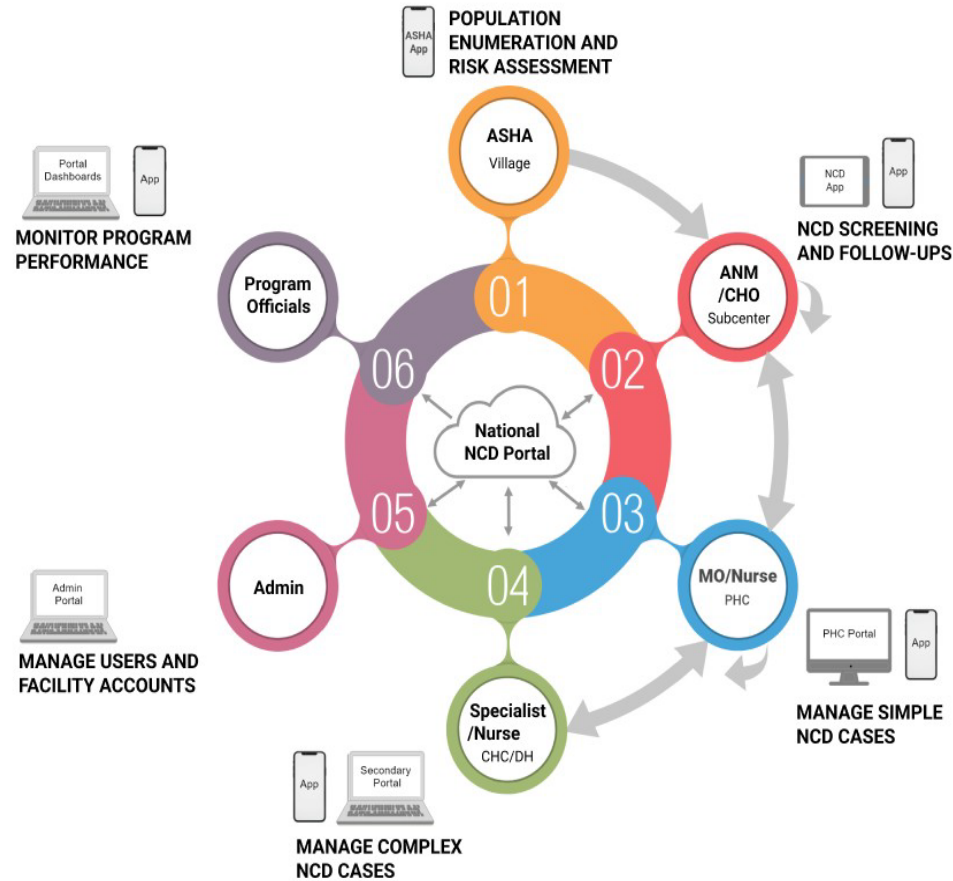
TELEMEDICINE – REMOTE CONSULTATION



- **Telemedicine:** Telemedicine provides patients lower cost healthcare that is accessible at any time and in any location.

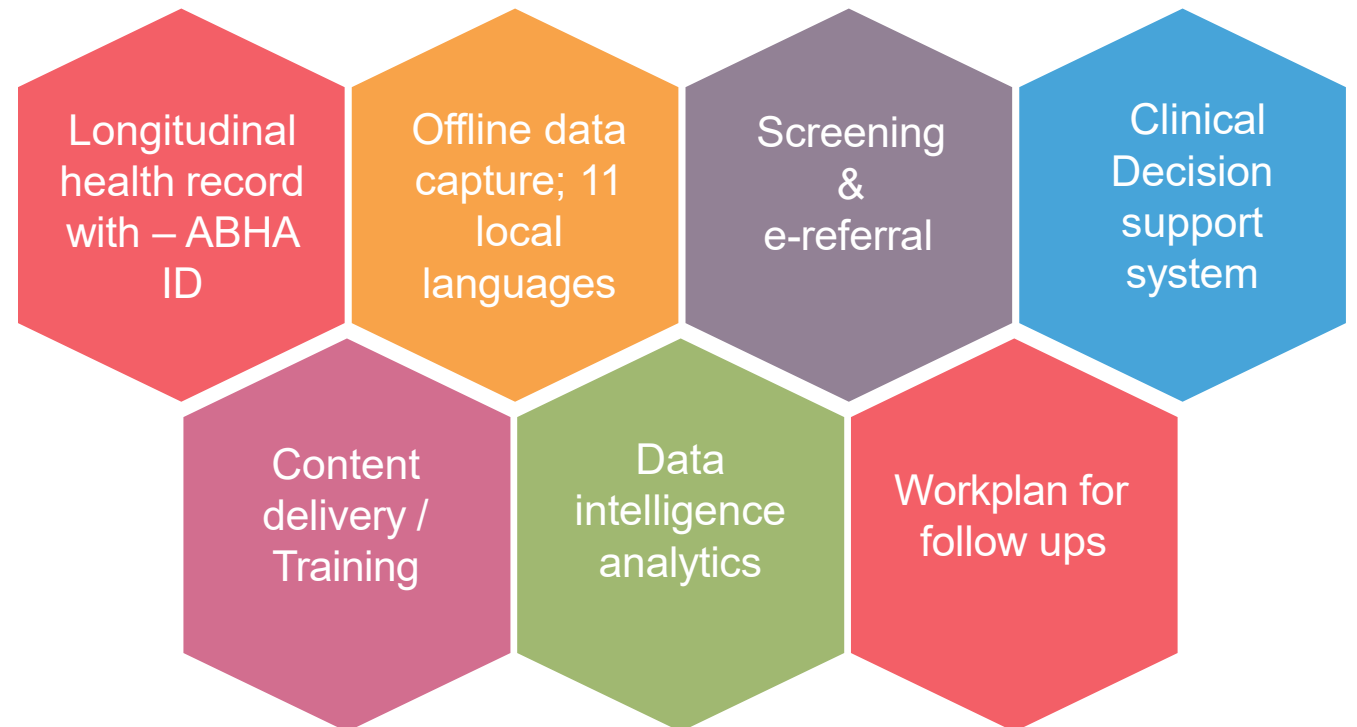
NATIONAL NCD PORTAL

Non Communicable Diseases Screening & Management



A mobile & cloud-based analytical system to facilitate delivery, management, planning & monitoring of NCD services through the public health system.

It is an initiative of MoHFW with the support in development and implementation by NHSRC, Tata trusts, DELL Technologies and WHO India (Field level user support in implementation).



AYUSHMAN BHARAT DIGITAL MISSION (ABDM)

- ABHA NUMBER
UNIQUE DIGITAL
HEALTH ID

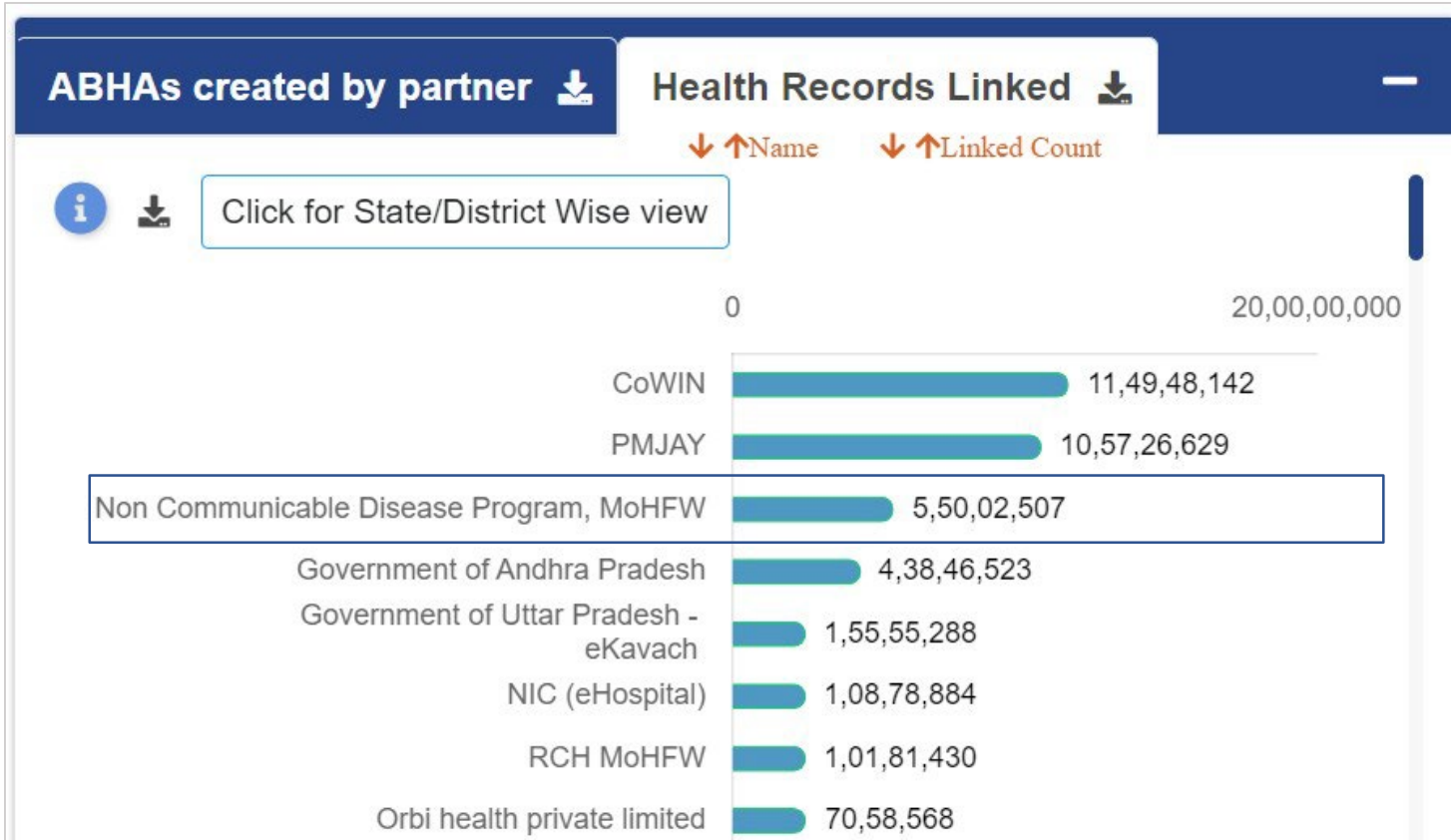
- HEALTHCARE
PROFESSIONAL
REGISTRY (HPR)



- ELECTRONIC
HEALTH
RECORDS (EHR)

- HEALTHCARE
FACILITY
REGISTRY (HFR)

Ayushman Bharat Digital Mission (ABDM) UPDATES



**Total ABHA Created/linked:
8,53,88,660**

Total Health records linked: 5,50,02,507

**Screening: 1,64,10,821 and Treatment:
8,95,859**

Total unique individuals: 1,70,70,755

TeleMANAS

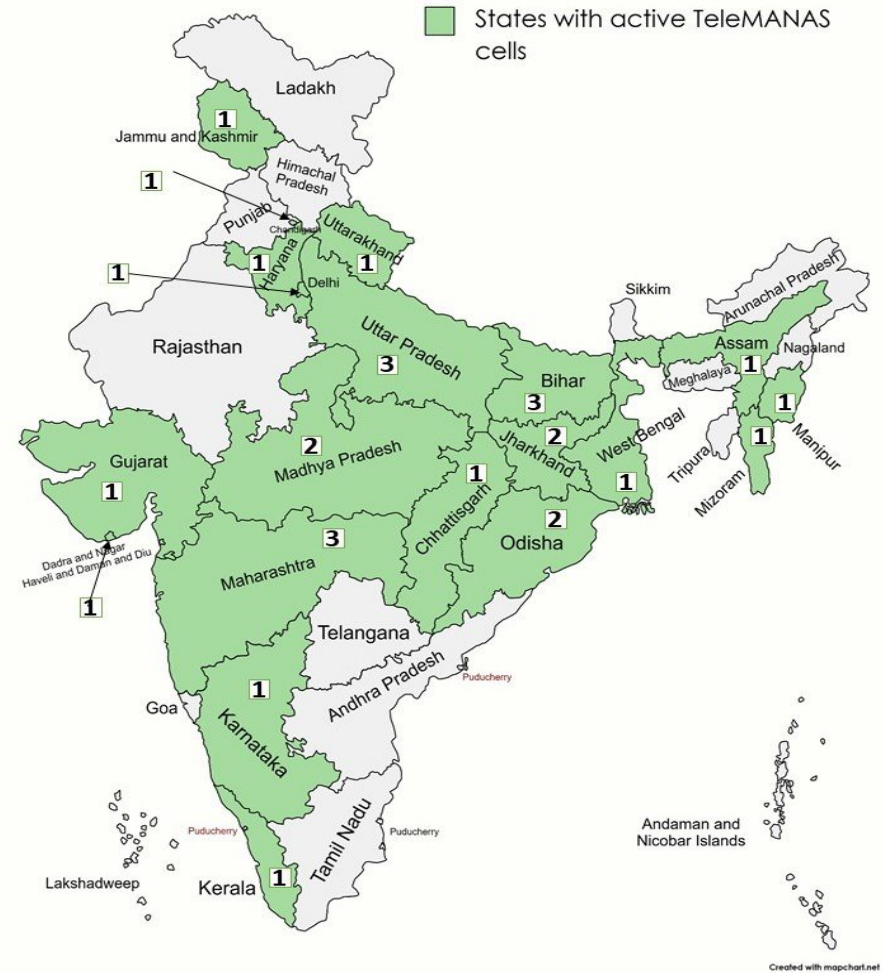
Launched on: **10th October 2022**

To narrow the gap in accessibility and treatment for mental healthcare services.

Tele MANAS is envisaged to be integrated with District Mental Health Program of the state – as a DIGITAL ARM of DMHP.

Comprehensive roll out of in all states and UTs


At least **One Tele MANAS Cell** to be established in each State/UT. (Total 51 cells)




Status as per TeleMANAS dashboard (28.05.24):

- **1000181+** Total Number of Calls
- **51** Tele MANAS Cells
- **23** Mentoring Institutes
- **5** Regional Coordinating Centers

DISTRICT MENTAL HEALTH PROGRAMME-TeleMANAS






**"Embracing Balance,
Embracing Mental Health"**

Tele MANAS
 a toll-free mental health helpline

Government of India has launched Tele MANAS - a toll-free mental health helpline that provides support and assistance to those struggling with mental health issues. Access to trained and accredited mental health counsellors, available across the country in multiple languages on

 14416 and 18008914416

www.klsvdit.edu.in

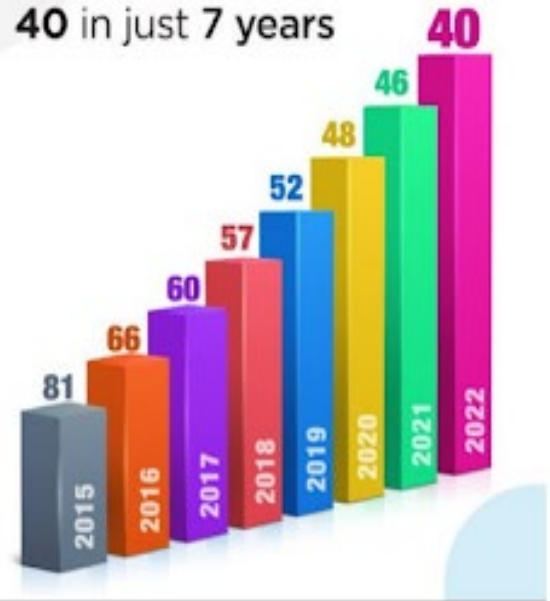




NITI Aayog

India rises
in **Global Innovation
Index 2022**

Jumps from **81** to **40** in just **7** years



Rank	Major States	Score
1	Karnataka	42.50
2	Maharashtra	38.03
3	Tamil Nadu	37.91
4	Telangana	33.23
5	Kerala	30.58
6	Haryana	25.81
7	Andhra Pradesh	24.19
8	Gujarat	23.63
9	Uttar Pradesh	22.85
10	Punjab	22.54

Rank	NE and Hill States	Score
1	Himachal Pradesh	25.06
2	Uttarakhand	23.50
3	Manipur	22.78
4	Sikkim	20.28
5	Mizoram	16.93

Rank	UTs And City States	Score
1	Delhi	46.60
2	Chandigarh	38.57
3	Daman & Diu	26.76
4	Puducherry	25.23
5	Goa	24.92

MedTech Valley of Death

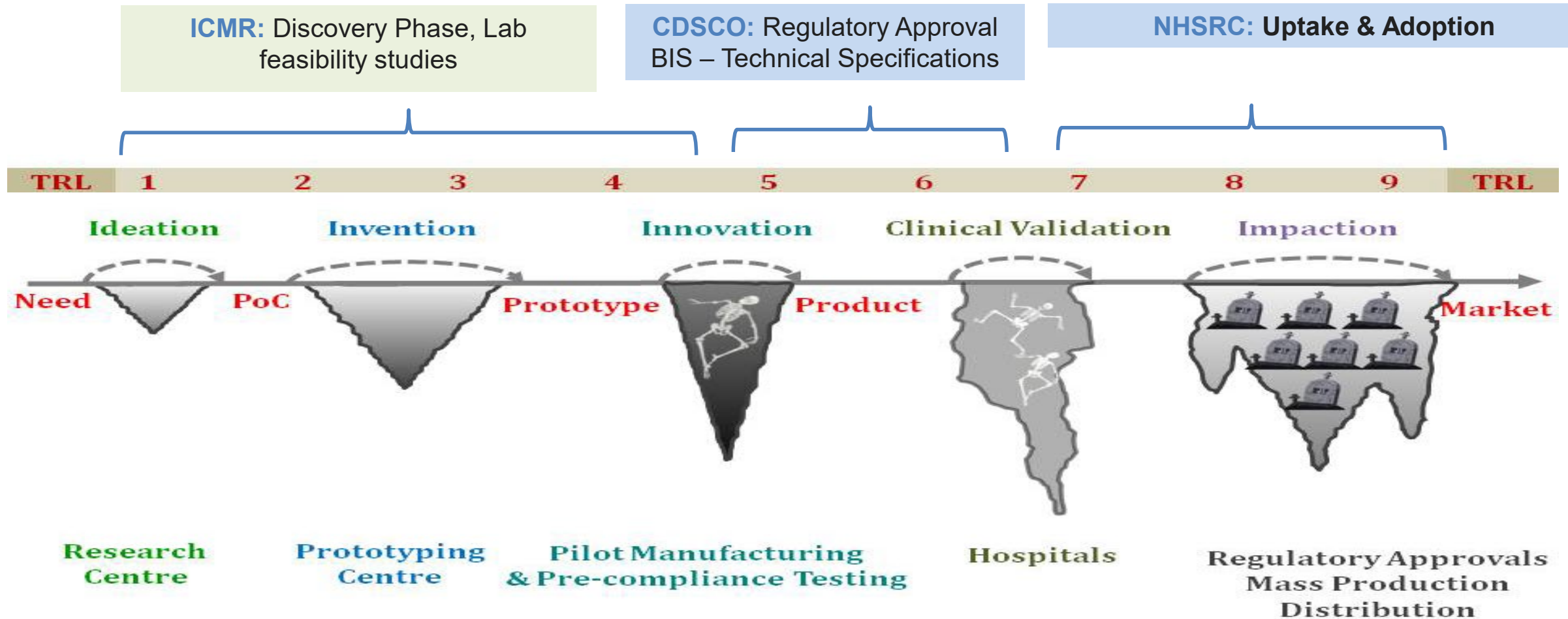
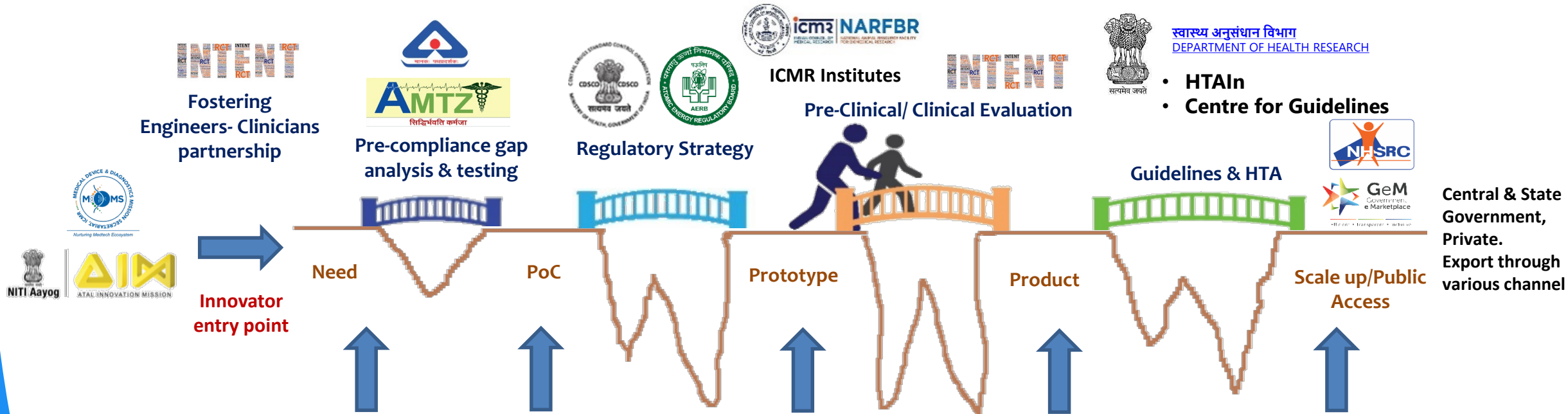


Figure: The 'Valley of Death' highlighting the various challenges faced in transition from ideation to successful commercialization of the product.

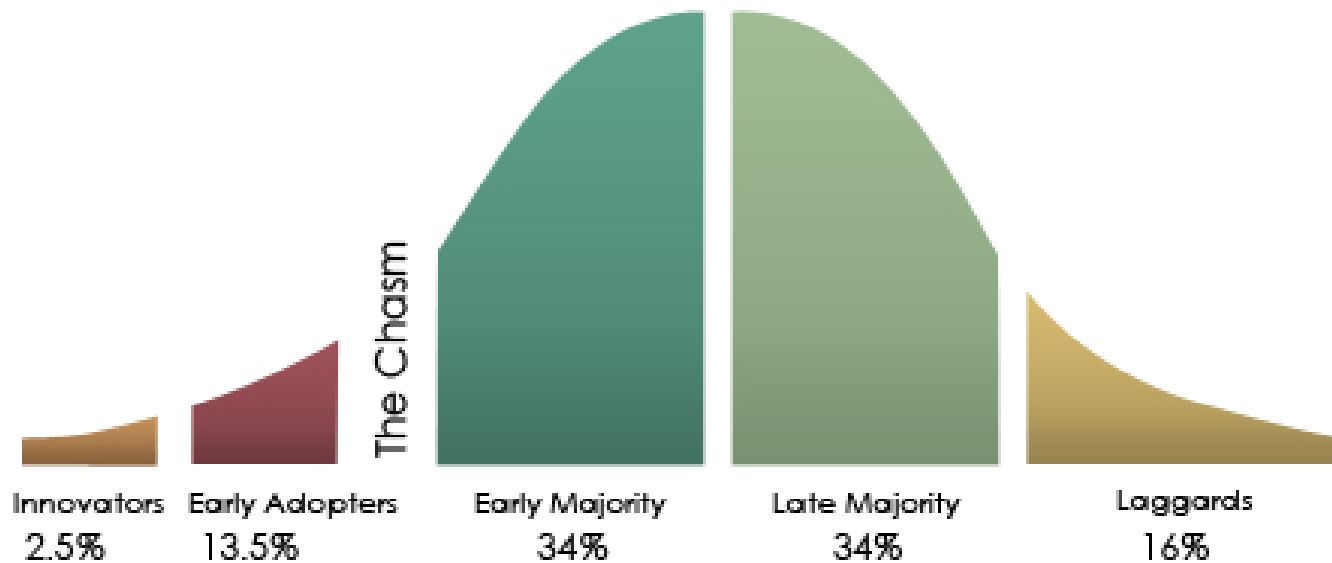
MedTech Mitra: Empowering innovators to face the challenges in the development pathway

MedTech mitra | Handholding MedTech innovators for clinical evaluation, regulatory facilitation and uptake of new products
A NITI Aayog-ICMR-CDSCO initiative

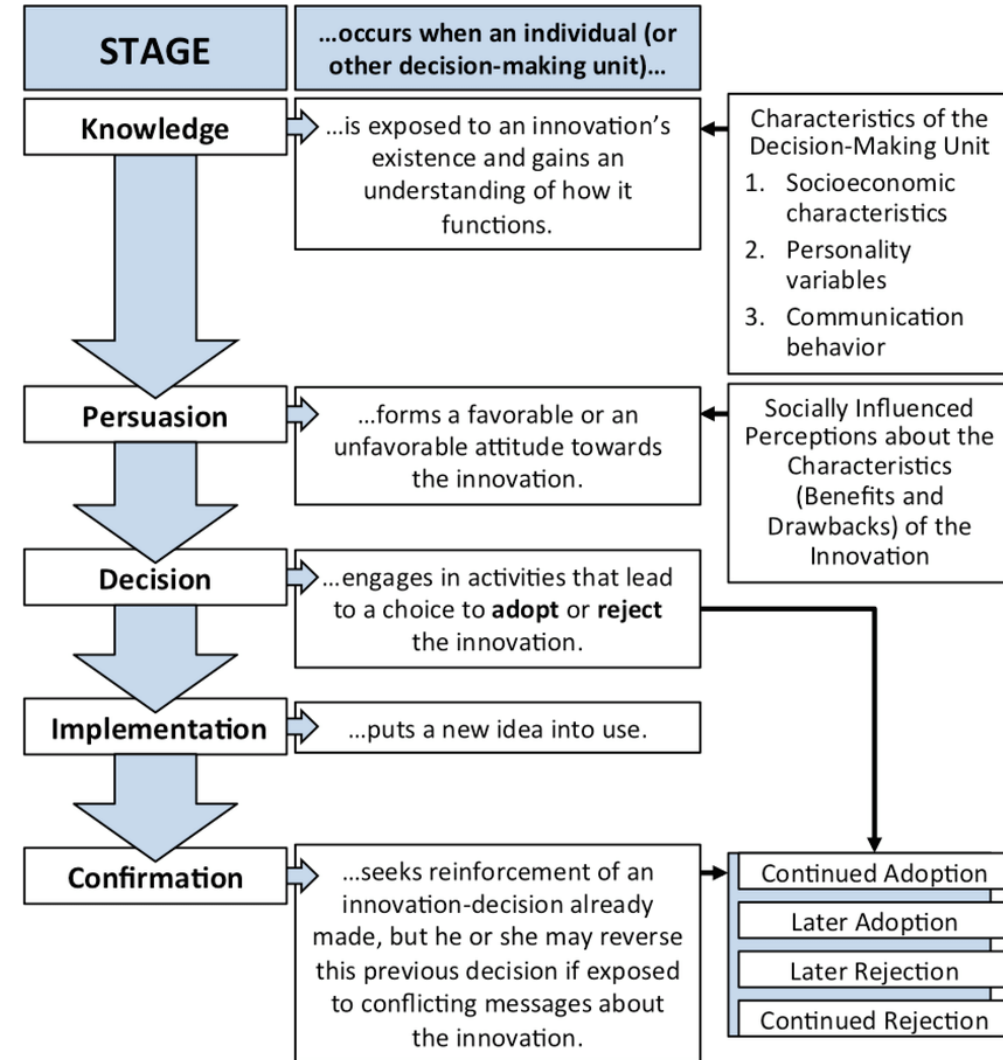


ADOPTION & DIFFUSION OF INNOVATION

ROGER'S INNOVATION ADOPTION CURVE



Trying to convince the mass of a new idea is *useless*.
Convince *innovators* and *early adopters* first.

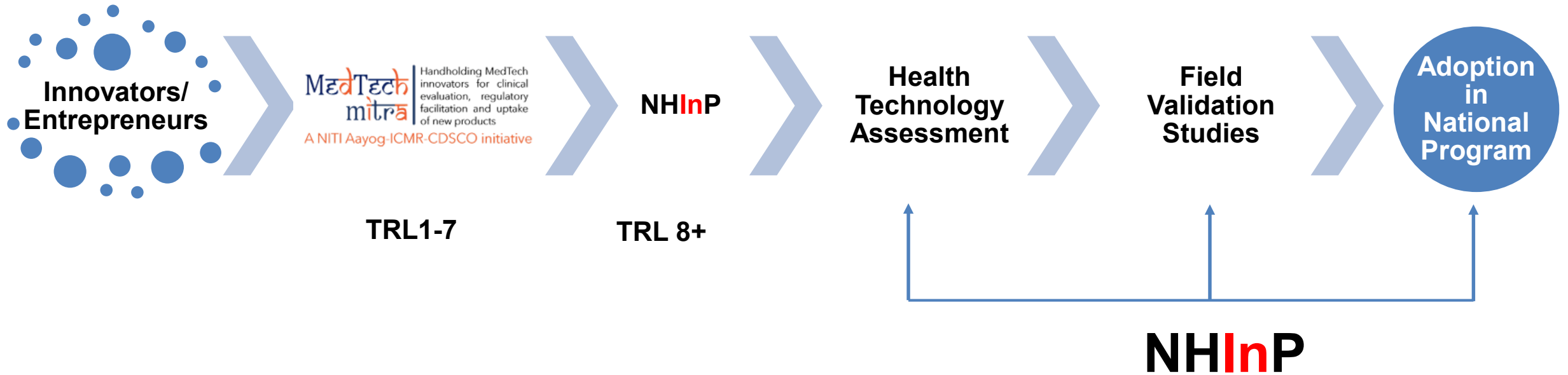


FACTORS AFFECTING ADOPTION & DIFFUSION

- **Technology Readiness Level**
- **Funding**
- **Public Policy**
- **Cost effective (Affordable)**
- **Accessible (Availability)**
- **Acceptability**
- **Reliability**



Technology Adoption Model In India

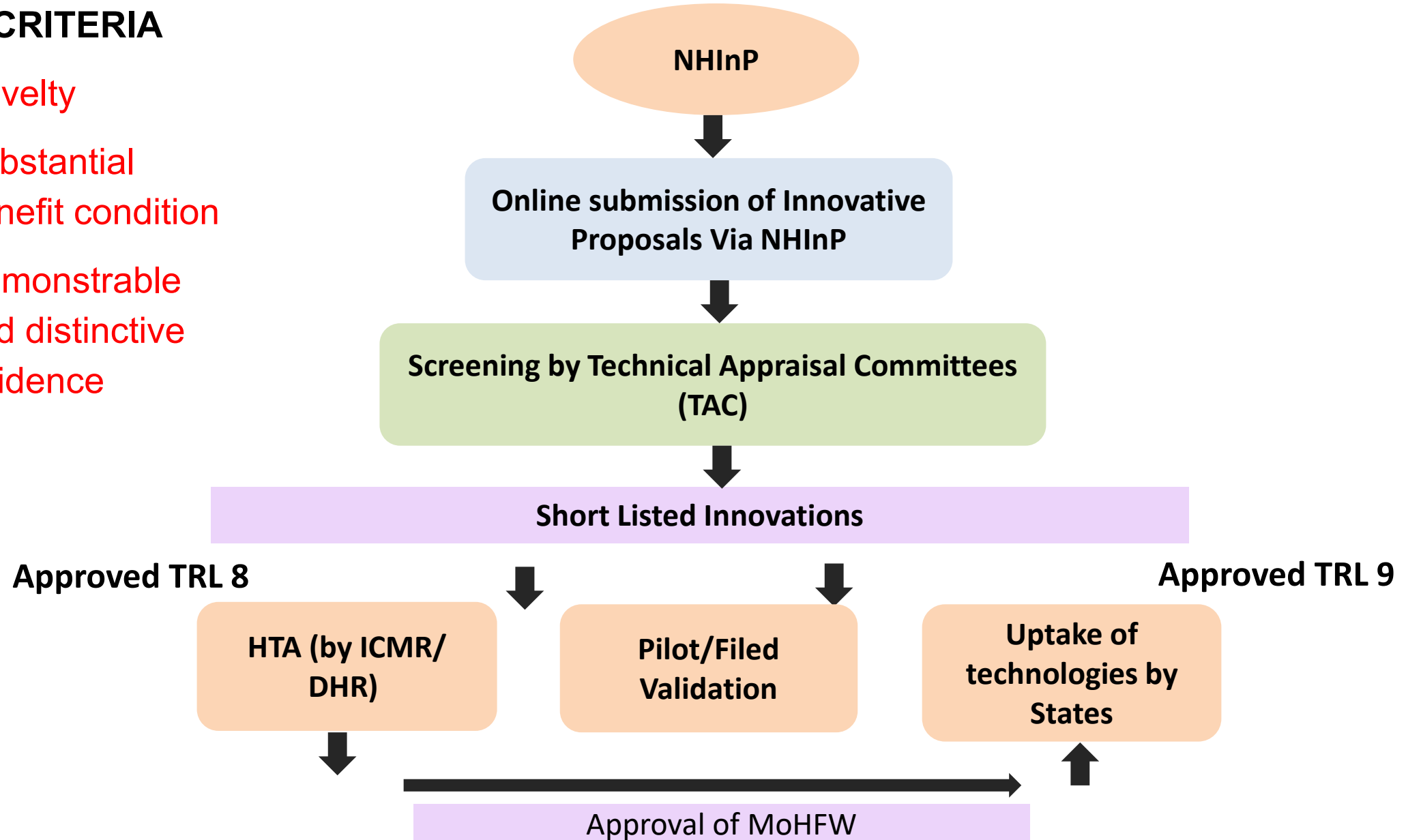


PROCESS FLOW FOR EVALUATION AND UPTAKE OF INNOVATIONS



CRITERIA

- Novelty
- Substantial benefit condition
- Demonstrable and distinctive Evidence



TECHNOLOGIES FOR APPRAISAL IN NHInP



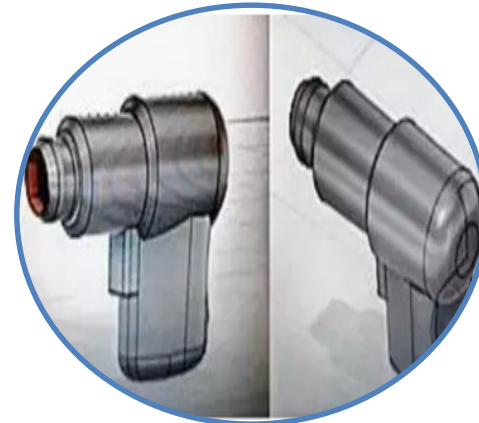
AlveoFit: Spirometer



Scintiglo: Urine Analyser



Mobilab: PoC Device



iBone Biopsy



Dozee: Remote Patient Monitoring



OralScan: Oral Malignancies



DEEPTeK: AI Powered PACS



NeuroTouch: Diabetic Foot Screen

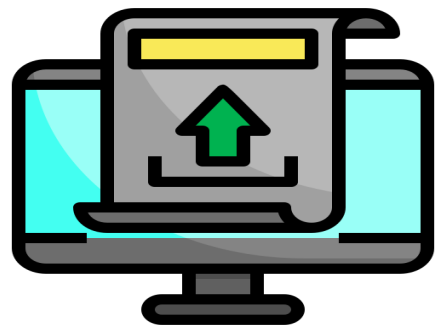


BRIOTA: Portable Spirometer



Accusmear: Slide Digitizer

UPTAKE/ PILOTING OF INNOVATIONS BY THE STATES/UTs



ROP / PIP
Under State
Specific
Innovations

NPCC
Recommendation

PILOT/ UPTAKE

Methods for Technology Adoption



Gem: Government e-Marketplace



State Program Implementation Plan by State Innovation Hubs and State Health Systems Resource Center



National Summit on Good & Replicable Practices and Innovations in Public Healthcare System in India



THANK YOU