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Impacting NCD Public Health Actions and Policies  
Collaborate Innovate Inspire

75  
Azadi Ka  
Amrit Mahotsav

70

*Since 2011*



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**A DECADE OF RESEARCH :  
IMPACTING  
NCD PUBLIC HEALTH ACTIONS  
2022**



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# A DECADE OF RESEARCH : IMPACTING NCD PUBLIC HEALTH ACTIONS 2022

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# Welcome Note



It is my great pleasure to share a brief journey of our work and achievements for the first ten years as National Centre for Disease Informatics and Research (ICMR-NCDIR), Bengaluru, Karnataka.

The institute was established in 2011 by Indian Council of Medical Research (ICMR). This first decade of the institute has made huge progress in the area of noncommunicable diseases (NCD) research. We are proud of our Scientists, Technical and other staff to be at the heart of many of these developments. Their pioneering ideas, high quality research, and commitment have tremendously contributed to the field of NCD research.

The ICMR National Cancer Registry Programme (NCRP) that was launched in 1981, is being coordinated by ICMR-NCDIR since 2011. This flagship program has now blossomed into a vibrant network of multi-disciplinary researchers representing more than 700 sources of cancer registration across the country. Over the decades, NCRP has provided information on cancer incidence by sites, morbidity patterns, mortality, and patterns of care and survival.

The ICMR Bioethics Unit continues fostering initiatives towards ethical conduct of biomedical and health research in India. Built on this firm foundation, we aspire that our institute will continue to contribute to shaping the health of our country. We strive to serve a new generation of researchers and practitioners in the field. Through our work, we aim to prevent and control NCDs, and improve the quality of life of people living with NCDs.

We express our gratitude and thanks to all our collaborators, partners , experts and advisory members for their participation and unstinted support.

With best wishes,

Dr Prashant Mathur  
Director

# About Us

The National Centre for Disease Informatics & Research (NCDIR), Bengaluru is one of the 28 permanent institutes under the apex medical research body - Indian Council of Medical Research (ICMR), Department of Health Research, Ministry of Health Family Welfare, Govt. of India.

It conducts research which is relevant for the prevention and control of noncommunicable diseases (NCDs), their risk factors and determinants through multi-centric studies/registries across the country. The major areas of work involve cancer, diabetes, cardiovascular diseases, stroke, mortality and bioethics. The core strength of the institute lies in epidemiology, biostatistics, information technology and bioethics.

The National Cancer Registry Programme (NCRP) under the Indian Council of Medical Research (ICMR) with its network of cancer registries was started in December 1981 with the co-ordinating centre at Bengaluru. Presently it is operated by the ICMR-NCDIR, Bengaluru. This provides data on cancer incidence, mortality, pattern, trend and geo-pathological distribution of cancers.

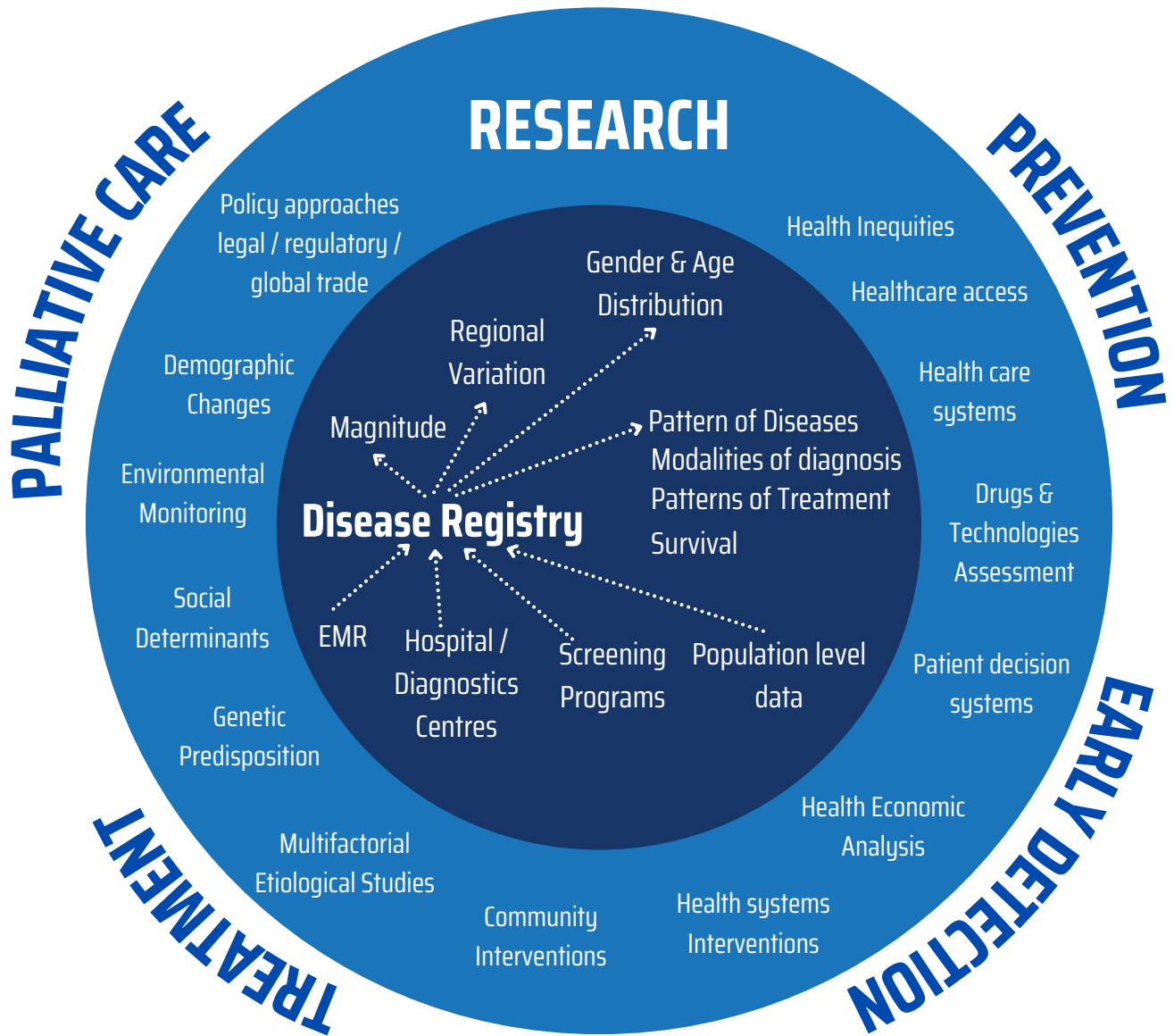
Focus of work lies in making it relevant to medical program implementation, policy development and improving overall health of the citizens.

The ICMR Bioethics Unit is involved in the development of ethical guidelines, policy and supplementary guidance related to various types of biomedical research conducted in our country. It serves as an ethics advisory unit of ICMR, its network of Institutions in India and Department of Health Research, Ministry of Health Family Welfare, Govt of India.



# Disease Informatics Framework

## DISEASE CONTROL



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- National Cancer Registry Programme
- National Stroke Registry Programme
- National NCD Monitoring Survey
- Diabetes National Model Study
- Assessment of continuum of care for diabetes and hypertension
- Hospital Based Cardiovascular Diseases and Heart Failure study in different regions of India
- Strengthening Medical Certification of Cause of Death (MCCD)
- Access to health care among individuals with diabetes during COVID-19 pandemic in a rural setting in Karnataka
- Utilization and adherence to clinical treatment guidelines in cancer care and the impact of COVID-19 pandemic on the delivery of health care services for NCDs

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- Evolution of data collection and reporting
- Technology timeline

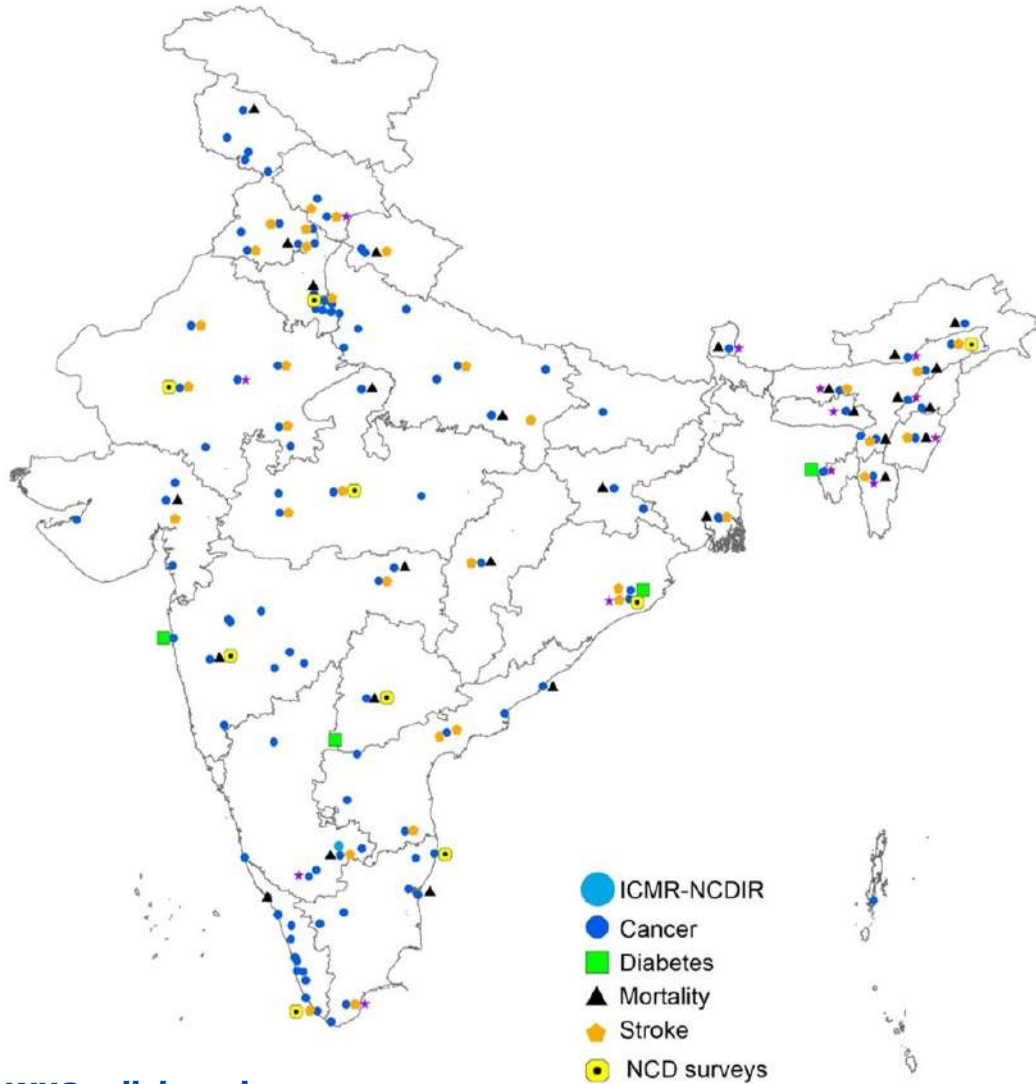
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# Network of Collaborators



## WHO collaboration



- To strengthen data analytics in stroke and cancer for improving health care delivery in AB-PMJAY empanelled hospitals
- AB-PMJAY transaction management system shall collect data on stroke and cancer diagnosis, treatment, and outcomes based on ICMR-NCDIR registry standards

## Collaboration with State governments

- Cancer Atlas - Punjab, Haryana, Rajasthan, Karnataka
- Strengthening MCCC- Tamil Nadu, Karnataka

# National Cancer Registry Programme

## NATIONAL CANCER REGISTRY PROGRAMME

India



Since 1981



**Established** 1981

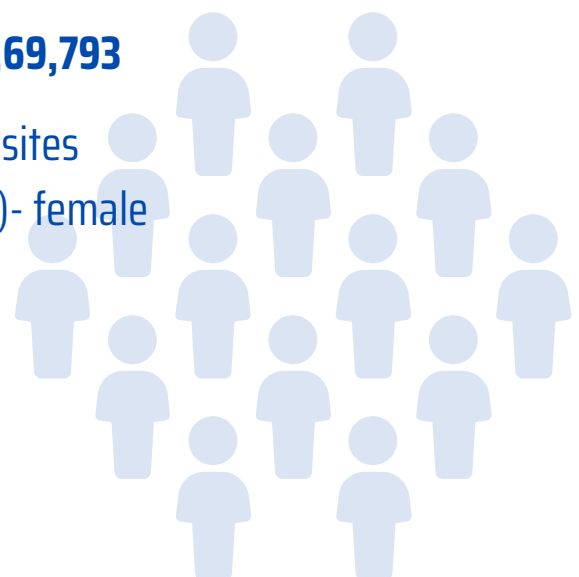
**Coordinating unit** ICMR - National Centre for Disease Informatics & Research  
Bengaluru

**Registry Types** Population Based Cancer Registry (PBCR)  
Hospital Based Cancer Registry (HBCR)  
Cancer Atlas Projects

**Number of Registries** PBCRs - 38  
HBCRs - 184

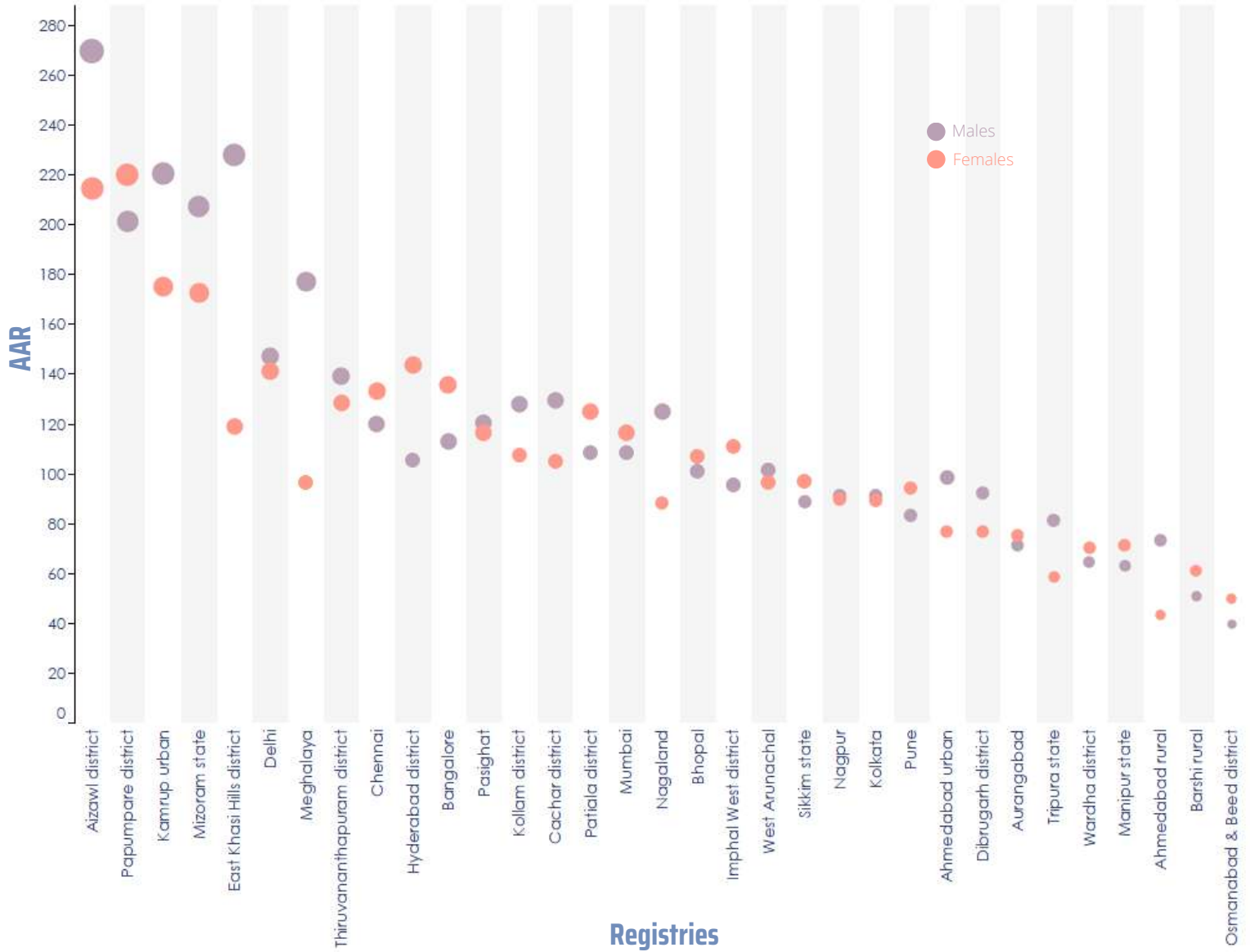
**Cancer estimates for 2025** • New cancer cases- **15,69,793**

- Most common cancer sites
  - Breast (2,38,908)- female
  - Lung (1,11,328)
  - Mouth (90,060)



# Cancer Statistics

Number of new cancer cases per 100,000 males and females in Population Based Cancer Registry (expressed as Age Adjusted Incidence Rate)

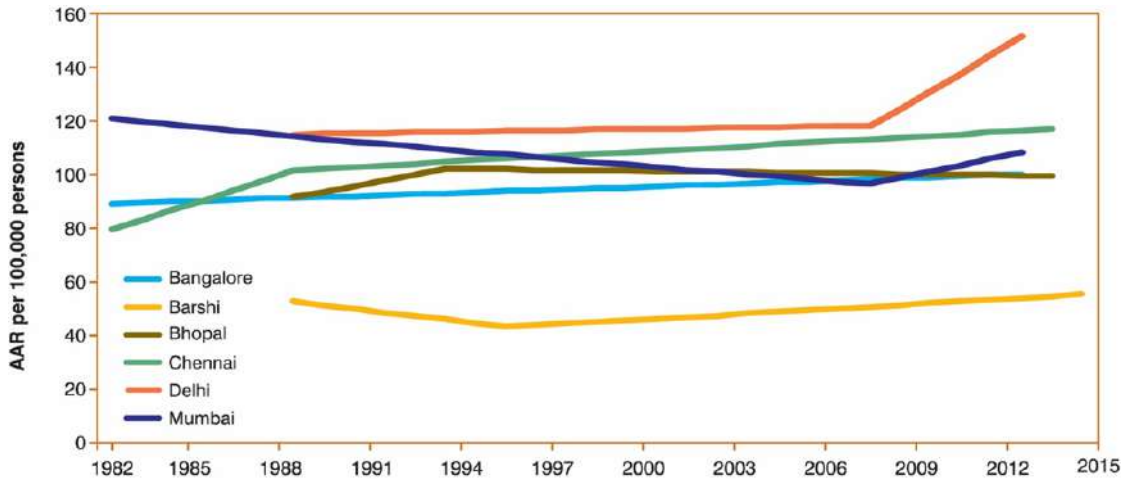


Reference: NCRP Report, 2020

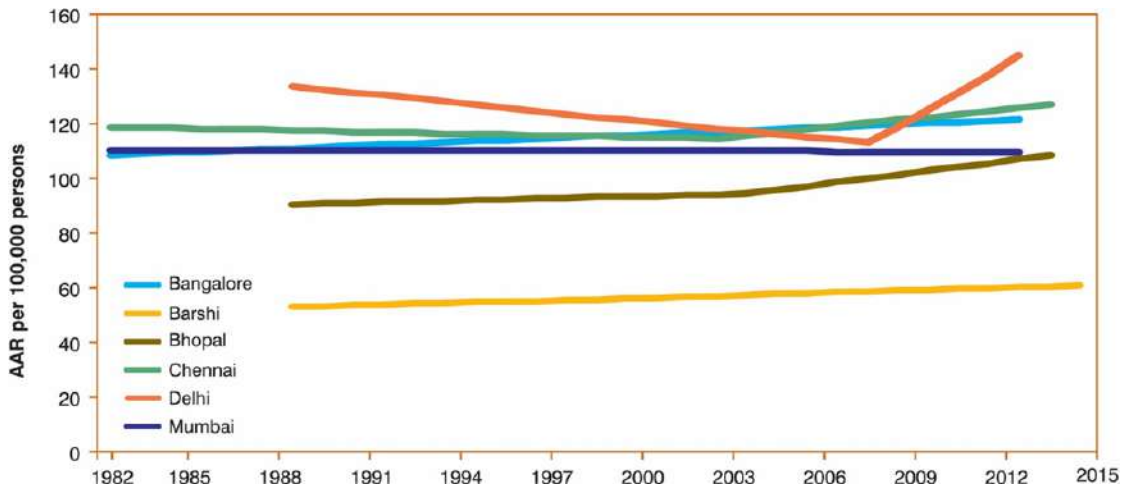
# Cancer Statistics - Trends in Cancer Incidence

## Trends in Cancer Incidence Rate ALL SITES (ICD-10: C00-C97)

Males

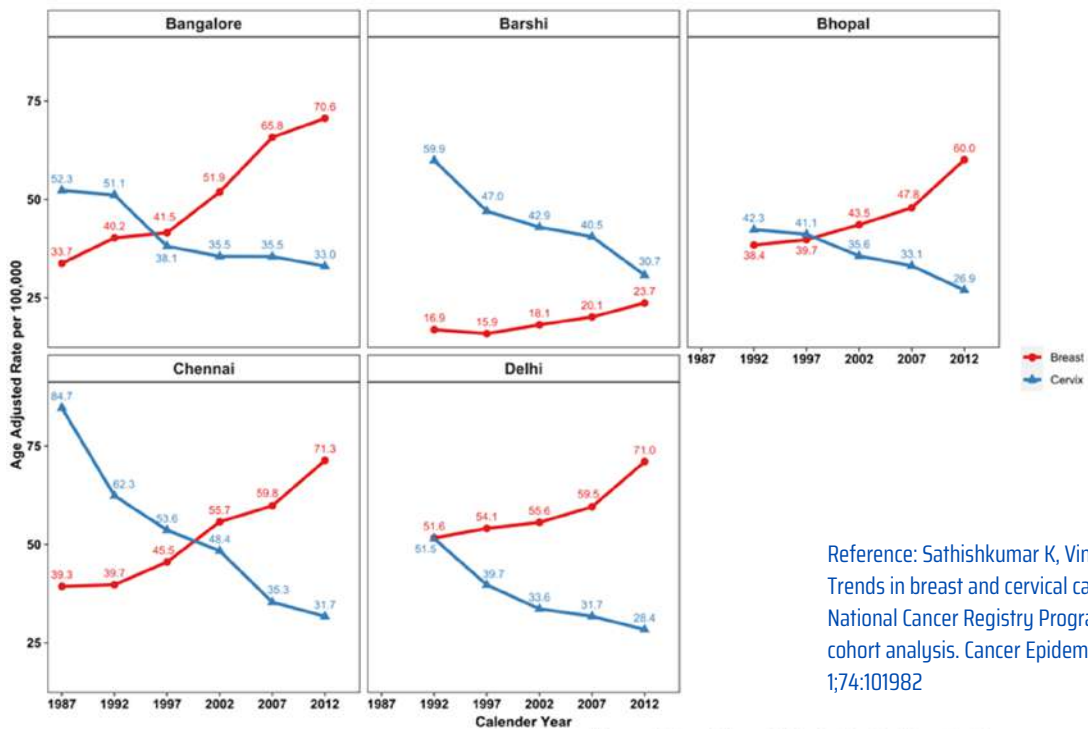


Females



Reference: Three-year report of PBCR: 2012-2014

## Trends in Cancer Incidence Rate of Breast and Cervical Cancer

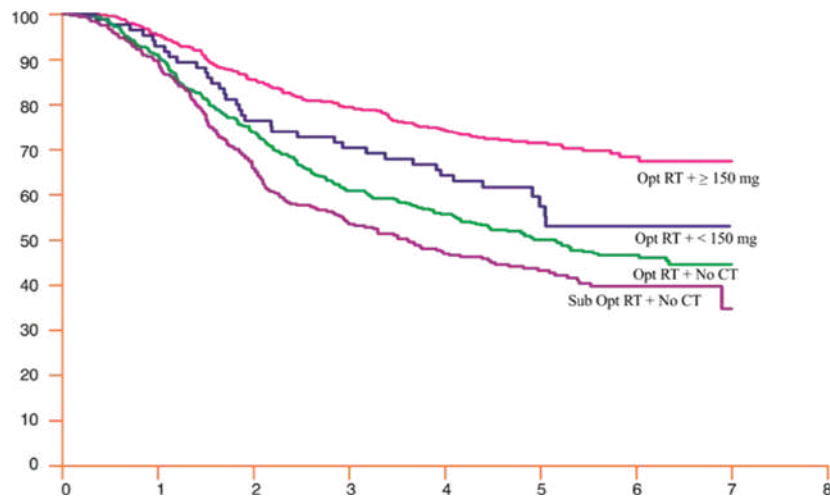
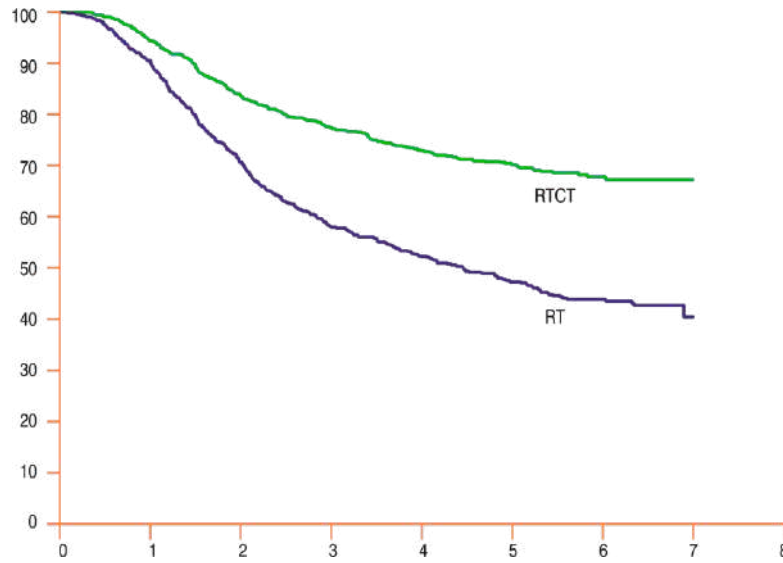


Reference: Sathishkumar K, Vinodh N, Badwe RA, et al. Trends in breast and cervical cancer in India under National Cancer Registry Programme: an age-period-cohort analysis. Cancer Epidemiology. 2021 Oct 1;74:101982

Observed five-year AARs were plotted against the year; PBCRs-Population Based Cancer Registries

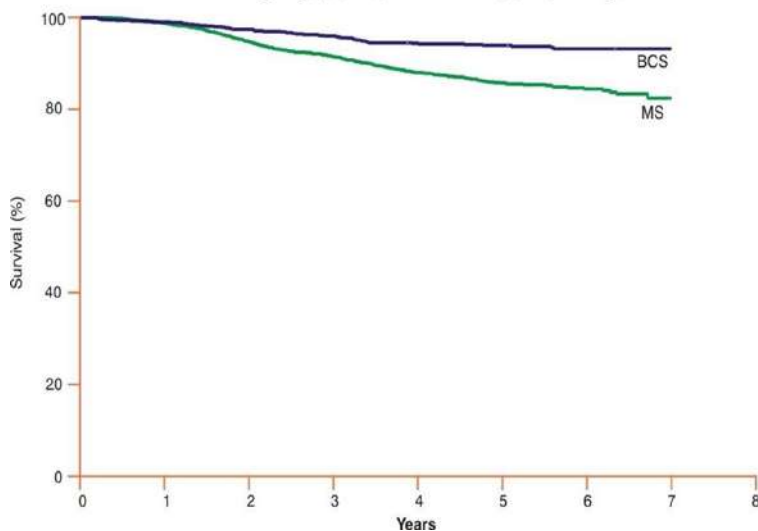
# Cancer Statistics - Outcome and Survival

**Kaplan-Meier comparative survival graph for patients with locally advanced cervical cancer**

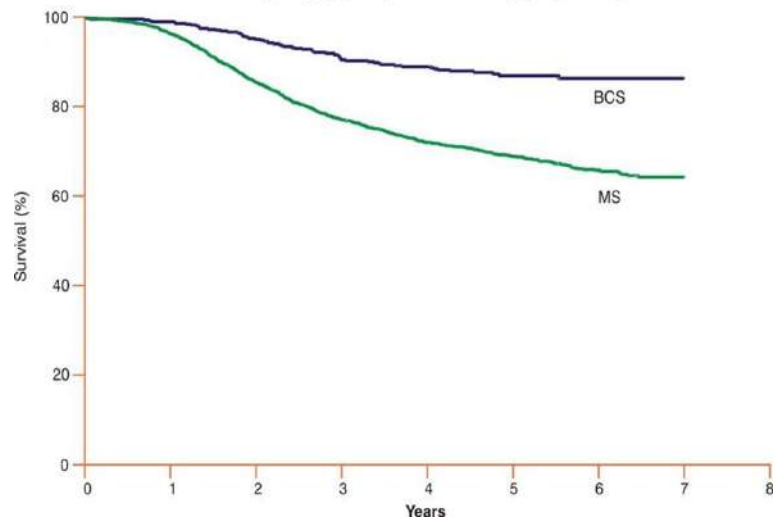


Reference: Nandakumar A, et al (2015). Concurrent chemoradiation for cancer of the cervix: results of a multi-institutional study from the setting of a developing country (India). *J Glob Oncol*, 1, 11-22

**Figure 1 Kaplan-Meier comparative survival curve for patients who received Breast Conserving Surgery (BCS) and Mastectomy (MS) for Stage II**



**Figure 2 Kaplan-Meier comparative survival curve for patients who received Breast Conserving Surgery (BCS) and Mastectomy (MS) for Stage III**

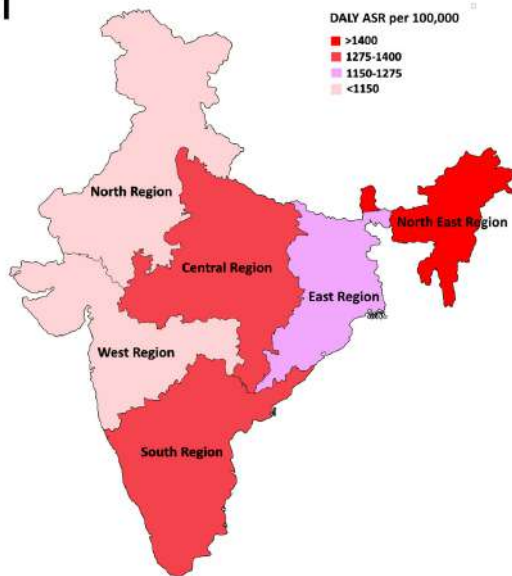


Reference: Nandakumar A, Rath GK, Katak AC et al. Decreased Survival With Mastectomy Vis-à-Vis Breast-Conserving Surgery in Stage II and III Breast Cancers: A Comparative Treatment Effectiveness Study. *J Glob Oncol* 2016; DOI: 10.1200/JGO.2016.004614

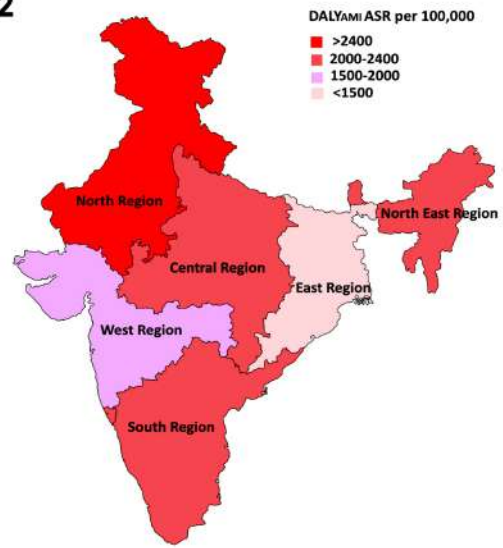
# Cancer Statistics - Burden of cancer

Distribution of total cancer DALYs – ASR per 100,000 by (a) Region and (b) State

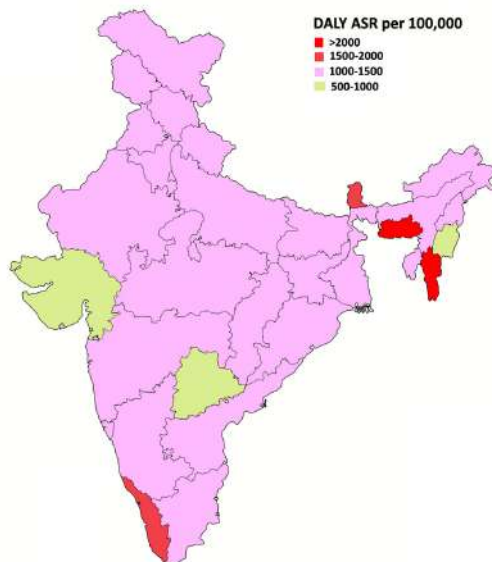
a1



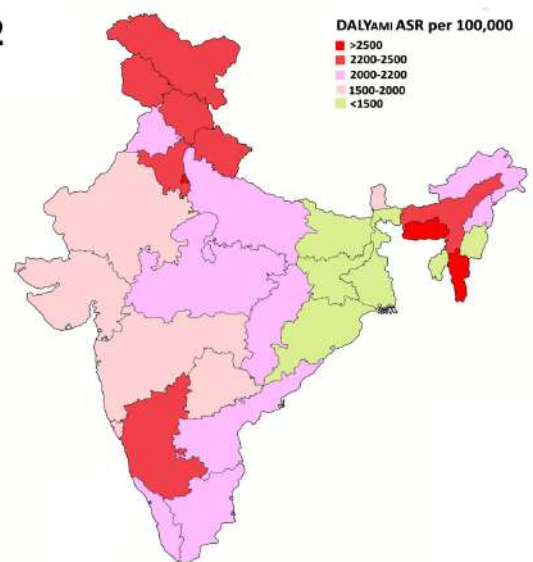
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b1



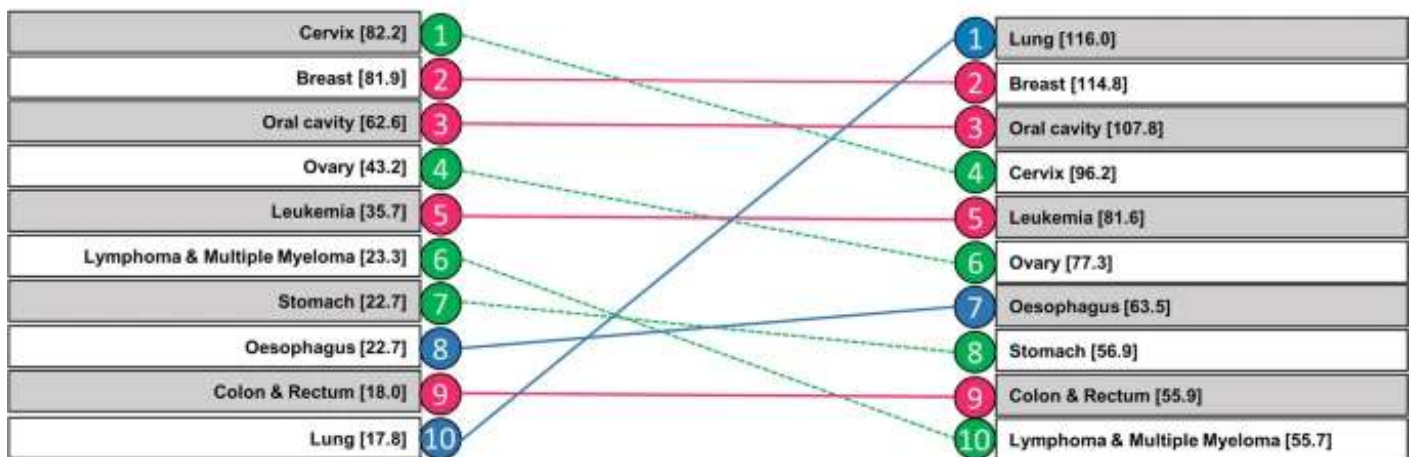
b2



Change in DALYs per 100,000 by cancer site from 2004 to 2021 in India

ICMR study - 2004  
DALYs per 100,000

Current ICMR-NCDIR study - 2021  
DALYs per 100,000



\*The number in bracket next to each cancer site is DALYs per 100,000.

— Same    — Increase    - - - Decrease

Reference: Kulothungan, V., Sathishkumar, K., Leburu, S. et al. Burden of cancers in India - estimates of cancer crude incidence, YLLs, YLDs and DALYs for 2021 and 2025 based on National Cancer Registry Program. BMC Cancer 22, 527 (2022). <https://doi.org/10.1186/s12885-022-09578-1>

# PBCR Network Under NCRP



# HBCR Network Under NCRP





# NCRP's Contribution Towards Cancer Control In India

NCRP data has been a vital resource for the central and state level programmes and policy makers framing cancer control measures



Setting up hospital based cancer registries under the "Strengthening of Tertiary Care Cancer Facilities Scheme" of Ministry of Health and Family Welfare



Parliamentary matters

Cancer related policies and programs

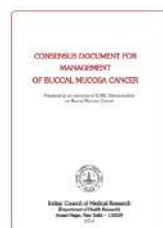
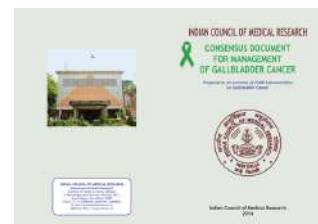
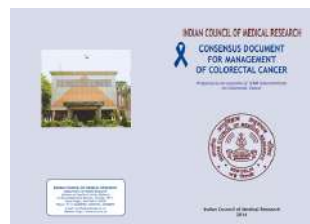
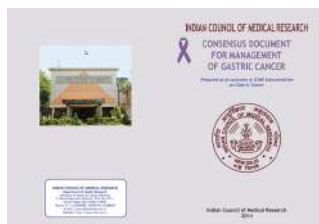
Rationale for population based screening for the oral, breast (females) and cervix cancers under the National Programme for Cancer, Diabetes, Cardiovascular diseases and stroke (NPCDCS)



Cancer notification: The NCRP has been the basis for accelerating cancer notification. Cancer is presently notifiable in 16 states of India through either a gazette notification or administrative order

Engaging with state governments for Cancer Atlas- Punjab, Haryana, Rajasthan, Karnataka

ICMR cancer guidelines



Data of NCRP is included in reports published by WHO- International Agency of Cancer Research (IARC)

International Agency for Research on Cancer



C15  
Cancer Incidence in Five Continents

International Incidence of  
Childhood Cancer

Cancer Survival in Africa, Asia,  
the Caribbean and Central America

## Way Forward For Cancer Registries

- Strengthen cancer registration network
- Build linkages with other databases
- Improve patient care outcome and survival
- Provide updated program and policy relevant inputs
- Cancer surveillance

# CANCER REGISTRY ACTIVITIES

## CARE & SURVIVAL STUDIES

- Patterns of care and survival to assess the type of care and disease outcomes for different types of cancers over time- Breast, Cervix , Head & Neck Cancers, Haematolymphoid , Gynaecological Malignancies and Gall bladder Cancer
- Estimating cancer survival in the population

## ASSESSMENT OF CANCER CARE

- Situational analysis of childhood cancer care services in India
- Understanding the impact of COVID 19 on the delivery of cancer and other NCD related services



## STRENGTHENING SCREENING AND EARLY DIAGNOSIS OF CANCER

- Strengthening of oncopathology laboratories for cancer biomarkers in breast and lung cancer



## TRAINING AND CAPACITY BUILDING IN CANCER RESEARCH

- Training of registry staff/ health care professionals in using cancer data for better cancer prevention and control
- Advocacy for using cancer data



Punjab Cancer Atlas  
(2012 - 2015)



Haryana Cancer Atlas  
(2016 - 2018)



Country and state wide  
assessment of patterns of cancer

CANCER ATLAS



Karnataka Cancer Atlas  
(2017-2021)



Rajasthan Cancer Atlas  
(2022 - 2025)



## SPECIAL FOCUS ON CANCER CONTROL IN THE NORTHEAST REGION

- Monitoring survey of cancer risk factors and determinants
- Promoting use of cancer statistics to further research



# National Stroke Registry Programme (NSRP)



## Population Based Stroke Registry (PBSR)

### Overall purpose

To generate reliable data on the magnitude of first -ever stroke in defined populations in different geographical regions in India.

### Salient points

- Population based stroke registries are established in Cuttack, Cachar, Tirunelveli, Kota, and Varanasi
- The first comprehensive report of the PBSRs provides a detailed descriptive analysis of stroke incidence and mortality in  $\geq 18$  years in rural and urban populations in the five PBSRs for 2018-2019

([https://ncdirindia.org/All\\_Reports/pbsrbook/default.aspx](https://ncdirindia.org/All_Reports/pbsrbook/default.aspx))

### Key findings from the report

- Every year 187 people per lakh population had first-ever stroke in Cuttack, Odisha while in Cachar district of Assam, it was 96 stroke cases per lakh population
- Deaths due to stroke within 28 days of onset of stroke ranged from 15 per lakh population in Kota, Rajasthan to 46 deaths per lakh population in Varanasi

### Public health impact

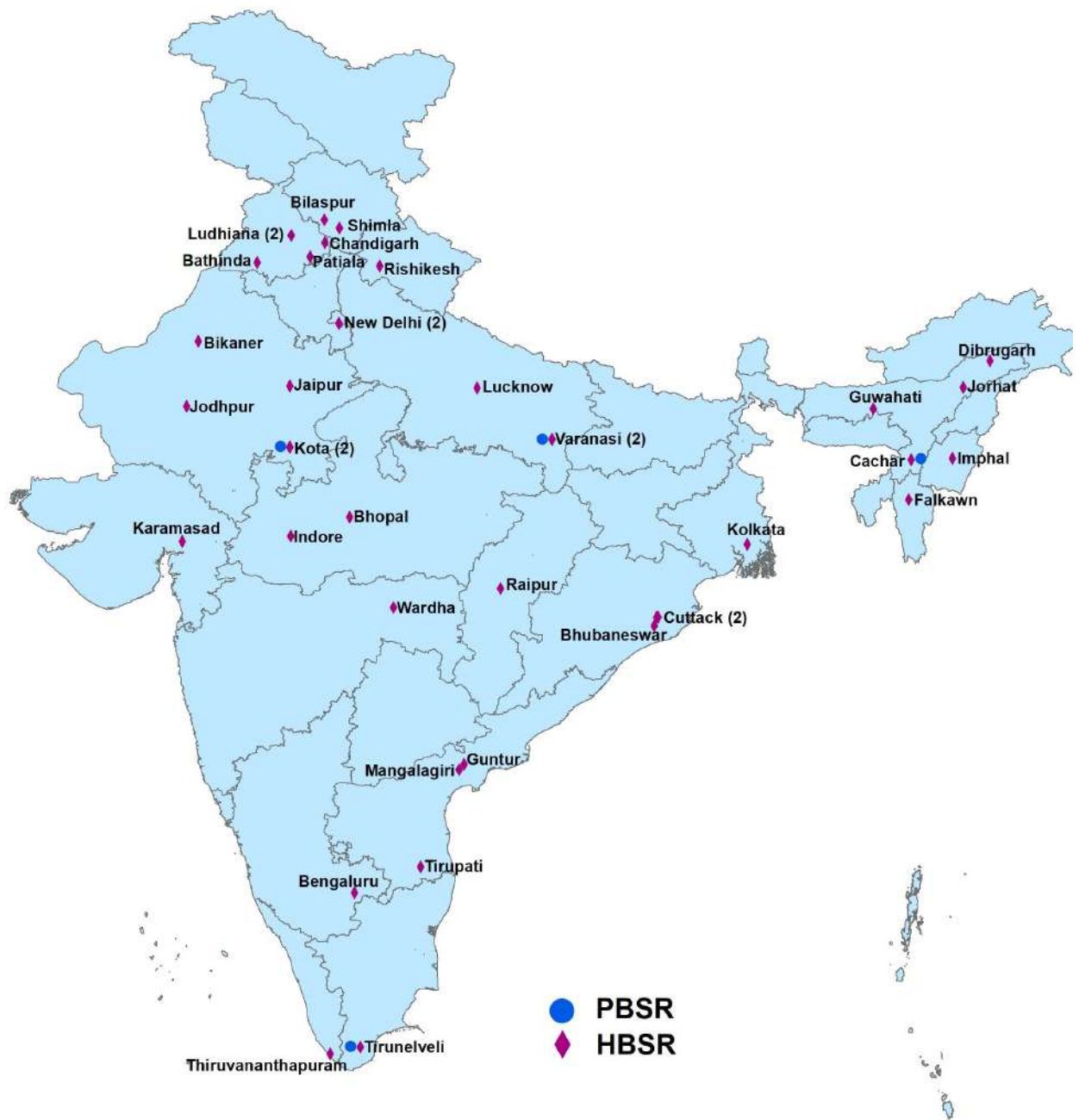
Population based Stroke registry addresses the nationwide gap in data on first ever stroke occurrence (incidence) in adults in India. The PBSR shall provide a sustained system of population-based stroke surveillance in India.

### Way forward

This data shall support the NPCDCS programme in

- Population-based interventions for control of risk factors
- Interventions to increase awareness on early detection and management of stroke
- Increase availability of stroke care services at primary and secondary care levels

# National Stroke Registry Network



# Hospital Based Stroke Registry (HBSR)

## Overall purpose

To describe the patterns of care and treatment in patients with stroke in hospitals in different regions of India.

## Public health impact

Stroke is the leading cause of death and disability in India; the HBSR data will help in improving the quality of care, treatment, and outcomes of stroke.

## Way forward

To strengthen stroke care, outcomes and survival.



# National NCD Monitoring Survey



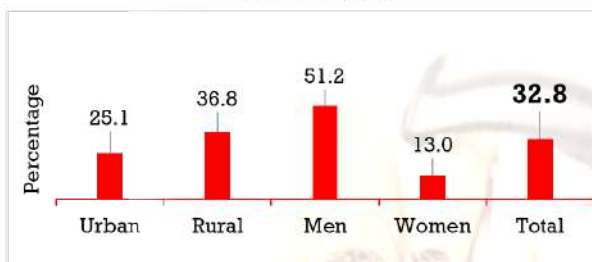
- In 2014, India was the first country to adopt the Global Noncommunicable Diseases (NCD) Monitoring Framework and develop a National NCD monitoring framework and the NCD action plan that have identified 10 targets and 21 indicators to be achieved by 2025
- The National Noncommunicable Disease (NCD) Monitoring Survey is the first comprehensive survey to describe and analyse NCD-related risk factors in India and monitor the progress

## Salient findings from the survey

### Tobacco use

#### Adults (18 - 69 years)

**Current tobacco use among adults (Smoke or Smokeless) (%)**



28.0% of adults use tobacco daily

**Adults who reported exposure to Second hand tobacco smoke in last 30 days (%)**

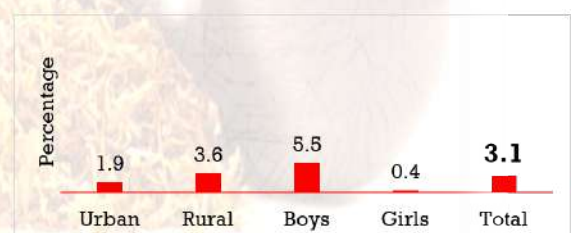
48.5% at home/workplace/transportation

#### Tobacco use

#### Adolescents (15 - 17 years)

7.0% of adolescents had ever used or experimented with tobacco

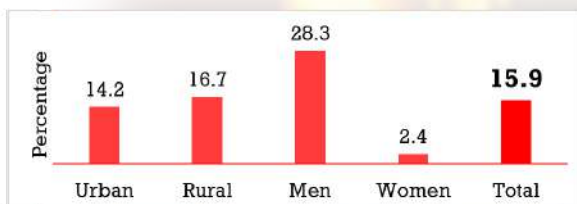
**Current daily tobacco use among adolescents (Smoke or Smokeless) (%)**



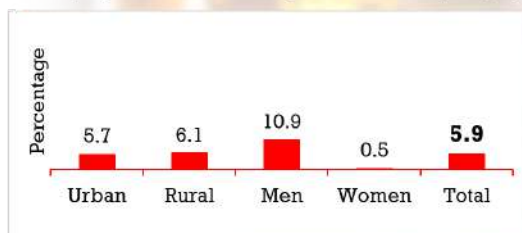
# Alcohol use

## Adults (18 - 69 years)

### Current alcohol use (%)



### Heavy episodic drinking in last 30 days\* (%)



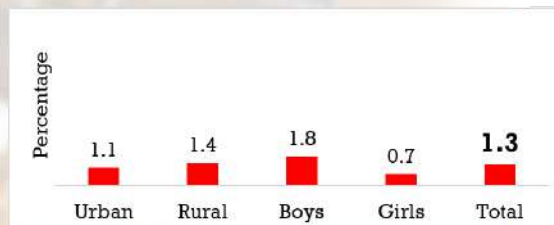
\*Heavy episodic drinking includes those who consumed  $\geq 6$  standard drinks (1 standard drink = 10g of ethanol) (for adults)

## Alcohol use

## Adolescents (15 - 17 years)

3.5% adolescents had ever consumed alcohol

### Current alcohol use among adolescents (%)



Current alcohol use was consumption of alcohol in the last 12 months.

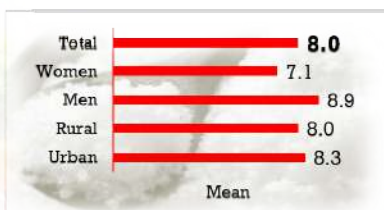
# Diet

## Adults (18 - 69 years)

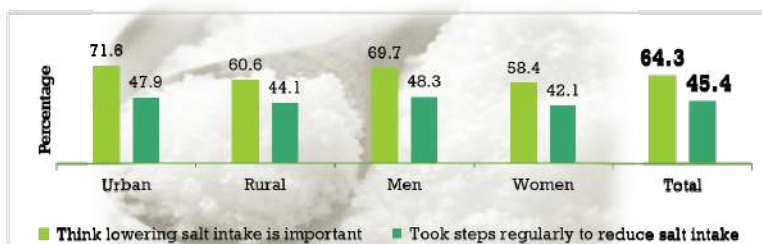
### Inadequate consumption of fruits and/or vegetables (%)



### Mean population salt intake (g/day)



### Perception and practices related to salt intake among adults (%)



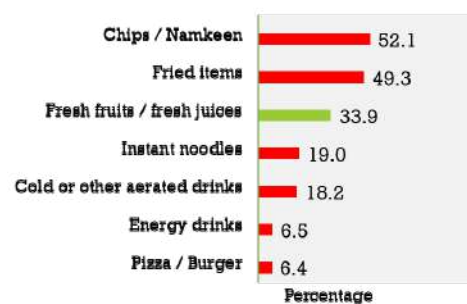
A serving of fruit and/or vegetables was equivalent to consuming 80 - 100 g per day. Inadequate consumption of fruits and / or vegetables - those eating  $<5$  servings of fruits and/or vegetables per day.

## Diet

## Adolescents (15 - 17 years)

Mean number of days breakfast was skipped in last 30 days - 9.6

### Consumption of the food items atleast once in a week (%)



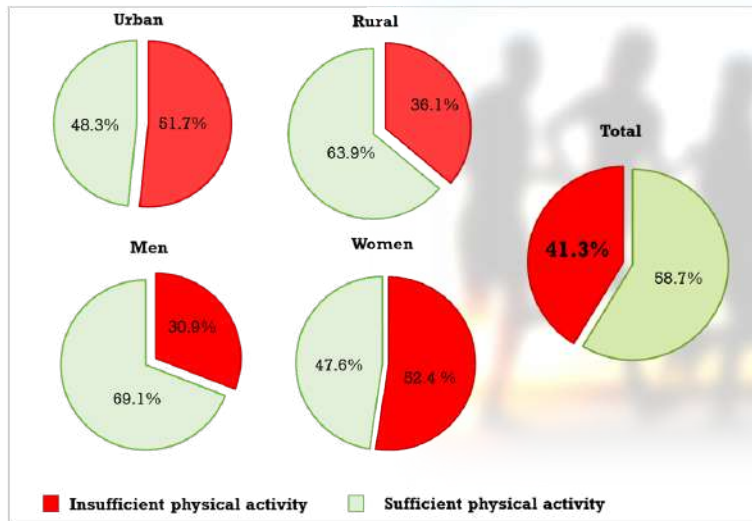
# Physical activity

## Adults (18 - 69 years)

## Physical activity

## Adolescents (15 - 17 years)

### Levels of physical activity among adults (%)



### Insufficient physical activity (%)

Urban	Rural	Boys	Girls	<b>Total</b>
38.0	19.3	21.5	29.3	<b>25.2</b>

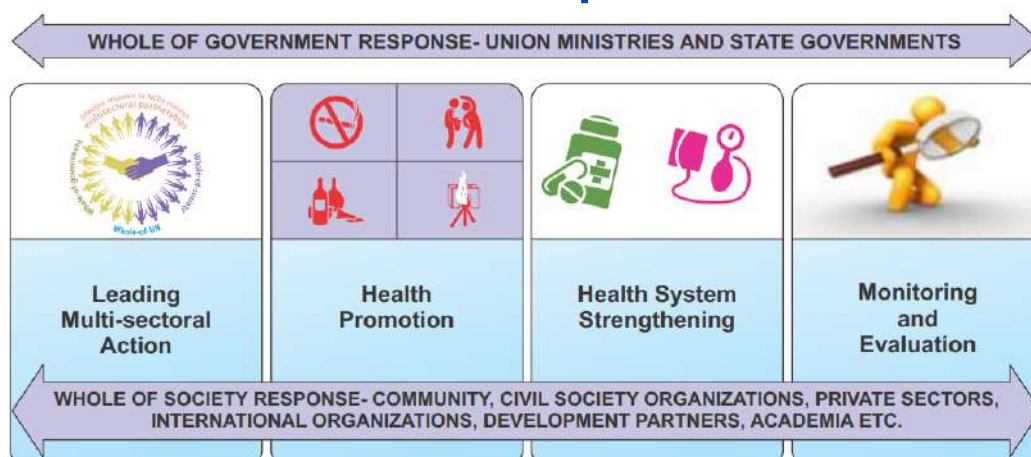
Insufficient physical activity was defined as, physical activity of moderate intensity (or its equivalent) for < 60 minutes per day, which is equivalent to < 1680 MET minutes per week

Insufficient physical activity - less than 150 minutes of moderate-intensity physical activity per week OR 75 minutes of vigorous-intensity physical activity per week OR an equivalent combination of moderate - and vigorous-intensity physical activity accumulating at least 600 MET-minutes per week.

## Public health impact of the NNMS Survey

- The results of this report are critical for implementing the various NCD control programmes and policies, including the National NCD Multisectoral Action Plan
- Monitoring national NCD action plan, Sustainable Development Goals and targets for NCDs, NCD multisectoral action plan
- Establish state level NCD monitoring systems, NCD surveillance, linkages with policy and program

## NCD Multisectoral action plan at state level



Source: Ministry of Health and Family Welfare Govt. of India. National Multisectoral Action Plan for Prevention and Control of Common Noncommunicable diseases (2017-2022)



# Diabetes National Model Study (DNMS)



DNMS is an ongoing community based study in selected rural parts of India, to understand the quality of care received by diabetic individuals and to measure the risk factors among them.

## Expected study outcomes

### Among the study population

Estimate number of cases diagnosed with diabetes and individuals in pre-diabetic stage.



Risk factors and quality of care received by diabetes individuals in rural areas.

Track continuum of care received over the study period.



### Among Hospitals



Availability of diagnostic, treatment facilities, knowledge and skill set amongst physicians and nurses for managing diabetes.

## Public health significance of the study

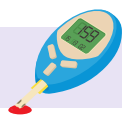
Assist in developing strategies to improve follow-up, adherence to treatment and monitoring of diabetes and its complications.

# Assessment Of Continuum Of Care For Diabetes And Hypertension



- Continuum of care (CoC) is coordinated care and services over time and across levels and disciplines, which is coherent with the patient's health needs and personal circumstances
- This approach ensures individual health needs from screening of the disease to management of complicated cases are taken care of at the family and hospital level
- Noncommunicable diseases like diabetes and hypertension require long term care and co-ordination between the various level of hospitals

## About the study



diabetes



hypertension

To understand the present status of implementation of diabetes and hypertension program and identify present barriers in service delivery for these conditions.

## Methods



- A rapid health facility survey to assess CoC was done in 10 districts of 5 states in India
  - Both government and private health hospitals
  - Patient exit interviews at primary, secondary, and tertiary levels of health facilities
- Interview to understand health seeking behaviour, the practice of self- management of disease and perceived level of satisfaction with the services of diabetic and hypertensive patients, who were
  - above the age of 18 years and
  - accessing services at identified hospitals

## Results

- More than 85% of government hospitals are implementing NCD programmes
- Most hospitals surveyed are providing screening and counselling services for lifestyle modification
- Majority of patients (87.7%) received free medicines for diabetes and hypertension on the day of survey
- About 78% of patients going to the government and 84% frequenting private hospitals were satisfied with the services offered
- Training of hospital staff to improve NCD care services at different echelons of care is required

## Outcomes

- Helped understand the availability of preventive, diagnostic, and treatment services in government and private hospitals
- Identified challenges associated with the continuum of care for diabetes and hypertension faced by health facilities
- Self-care practices, awareness of the disease and its complications and levels of satisfaction with services provided by public and private hospitals were obtained from patient interviews



## Public health significance of the study

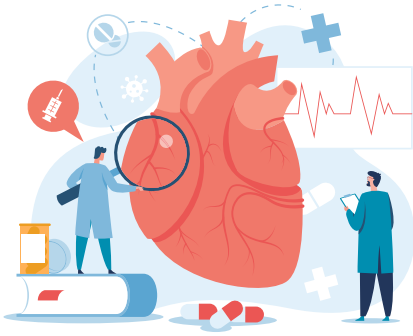
The study findings will help improve continuum of care for noncommunicable diseases upon scaling up.

# Hospital Based Cardiovascular Diseases (CVDs) and Heart Failure Study In Different Regions Of India



- Cardiovascular diseases (CVDs) are a group of disorders of heart and blood vessels
- Heart failure (HF) is a serious condition when the heart cannot pump enough blood and oxygen to support other organs in the body
- Diseases of heart, blood vessels, diabetes and hypertension increase the risk of heart failure

## About the study



Clinical records of patients diagnosed with CVD and HF from hospitals across India was assessed to understand:

- different causes
- method of diagnosis
- treatment received by CVD and HF patients

## Results

- A total of 10,059 patients were registered across 5 centers. Most of the cases registered were from rural areas (60.5%)
- About 60% of the cases were admitted and the rest were treated in OPDs (40%), majority were males (67.5%)
- Mean age of the cases admitted for HF was 58.5 years and 56.1 years for OPD cases. Almost half of the cases were in age group of 30-59 years
- Ischemic heart disease (73.4%) was the most common cause followed by cardiomyopathies (30%) and Rheumatic Heart Disease (7%)
- Diabetes, hypertension & anemia were the leading co-morbidities associated with HF cases
- Beta blockers (OP vs IP) (76% vs 60.5%) were the most common drug administered followed by loop diuretics, Angiotensin Receptor Blockers (ACEIs) and Mineralocorticoid Receptor Antagonists (MRAs)
- The reported mortality among diagnosed heart failure cases at the end of 180 days was 14.1%

## Outcomes

- Ischemic heart disease was the leading cause of HF
- Programs and strategies towards reducing the burden of hypertension, diabetes and ischemic heart diseases in India, can substantially contribute to reducing the burden of heart failure and associated mortality in India

## Public health significance of the study

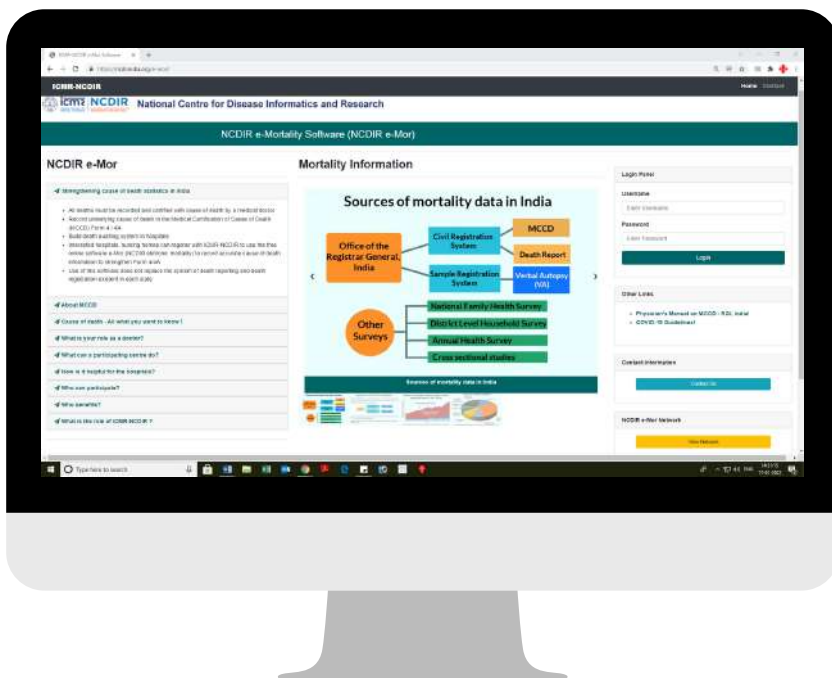
The findings will help in developing strategies for better clinical management of CVD and heart failure patients requiring long term care.

# Strengthening Medical Certification Of Cause Of Death (MCCD)




- Robust mortality data is necessary to measure health status of populations
- Cause of mortality data is not robust in the Civil Registration system
- Medical certification of cause of death (MCCD) is less than 21% of all registered deaths, and completeness of cause of death information is only 10 % in India

## ICMR-NCDIR's work in strengthening Medical certification of Cause of death includes:



- NCDIR e-Mor software is free and can be used by any hospital after registration

 [ICMR-NCDIR e-Mor software \( https://ncdirindia.org/e-mor\)](https://ncdirindia.org/e-mor)

## Provide technical support and resources to State governments in strengthening MCCD systems

### Tamil Nadu

Govt of Tamil Nadu has integrated cause of death module of the e-Mor into the CRS software to standardize MCCD reporting across the state.

Tamil Nadu's Department of Public Health and Preventive Medicine was given technical guidance.

### Karnataka

ICMR-NCDIR supports training and provides technical guidance on strengthening CRS software e-JanMa with ICMR-NCDIR e-Mor software.

## Guidance on appropriate recording of COVID-19 as cause of death



- ICMR-NCDIR developed the guidance document on recording cause of death due to COVID-19 to streamline and standardize cause of death certification of COVID-19 deaths and the use of emergency ICD-10 codes released by the World Health Organization
- The Guidelines were disseminated to all Chief Secretaries of States/UTs and all the Chief Registrars by the ORGI
- The document has been widely used by the medical establishment, Dept. of Health and Family Welfare of states/UTs, media, and researchers

## Public health impact Implementation of ICMR-NCDIR e-Mor in hospitals:



- Improved documentation of MCCD in hospitals
- Enabled a standardized system of cause of death reporting, comparable with International standards
- Facilitates the smooth and automatic recording of data in various CRS forms
- In hospitals using e-Mor with regular mortality audits, it facilitated better health outcomes
- It will help in the analysis of preventable deaths at the facility level

## Way forward

1. Strengthening MCCD by implementing e-Mor software and MCCD audit systems in hospitals across India.
2. Development of online training modules on MCCD for medical doctors.
3. Implementation research on MCCD system in states and ways to improve MCCD practices.

# Access To Health Care Among Individuals With Diabetes During COVID-19 Pandemic In A Rural Setting In Karnataka



This study described the pattern of care available for 61 individuals with diabetes in villages of rural Devanahalli, near Bengaluru during the COVID-19 pandemic

## Key Findings



One-Fourth of the individuals did not monitor blood glucose levels

## Challenges in blood glucose monitoring/medication compliance/doctor consultation



Difficulty in consulting doctor and procuring medicines as clinics and hospitals were closed



Crowded hospitals



Lack of transportation



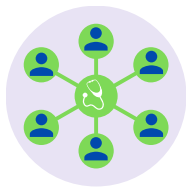
Lack of glucometer strips



Few laboratories and pharmacies were closed



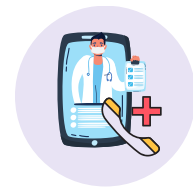
Doctors were available for a fixed time



Limited access to regular consulting doctors had forced the patients to consult other doctors



Unavailability of the prescribed medication had forced many to opt for an alternate brand of their medication or purchase medications online



Teleconsultation was not favoured by the individuals and was only limited to telephone calls

## Public health significance of the study

- Need to develop strategies that ensure continuous access to diabetes care in rural populations
- Increase awareness and improve access to telemedicine facilities in rural areas

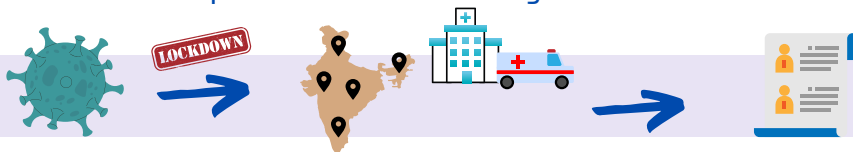
# Utilization and adherence to clinical treatment guidelines in cancer care and the impact of COVID-19 pandemic on the delivery of health care services for NCDs

## About the study

The survey aimed to assess;

- (i) the utilization and adherence to clinical guidelines in managing patients with cancer and changes in care practice during the COVID-19 pandemic
- (ii) the impact of the COVID-19 pandemic on the delivery of health care services for NCDs

## Methods



The period of reference for the study: March to May 2020 (during complete lockdown)

A total of 107 hospitals with a Hospital-based cancer registry that was part of the collaborating hospitals under the ICMR-NCDIR network participated in the survey.

## Key findings



- Majority (96%) of the respondents reported that clinical guidelines are crucial for cancer treatment administration
- Respondents stated that clinicians (97.3%), researchers (85.1%) and academia (82.4%) have a vital role in preparing clinical guidelines for cancers
- Nearly 58.9% of participants followed clinical guidelines for cancer patient management during COVID-19, while 40.0% did not observe any guidelines since their relevance during the pandemic was unclear
- 76% of the respondents had adopted changes in cancer care practice for systemic therapy, followed by surgery (65.3%) and radiotherapy (64%)
- Telemedicine consultations for adjustments in systemic therapy, radiation, and surgery were the major changes adopted in cancer care during the COVID-19 pandemic
- Nearly half (44%) of the respondents stated that there had been a disruption of NCD related healthcare services during all the three months

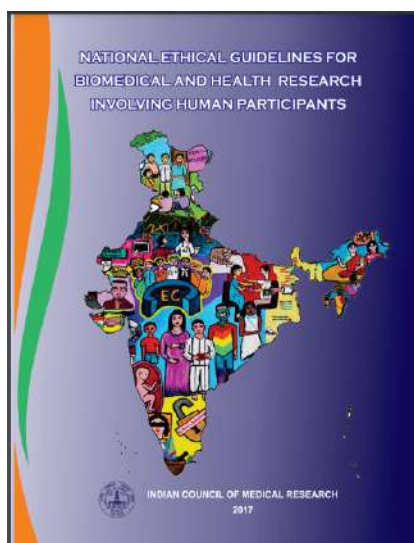
## Public health significance of the study

Given that the pandemic is likely to continue for an unanticipated period, the study findings highlight the need for NCDs to be included in the public health emergency protocols. Strategies to maintain a continuum of care must be integrated into ongoing NCD control programmes in the country.

## ICMR Bioethics Unit

# I. GUIDANCE DOCUMENTS, POLICIES AND REPORTS

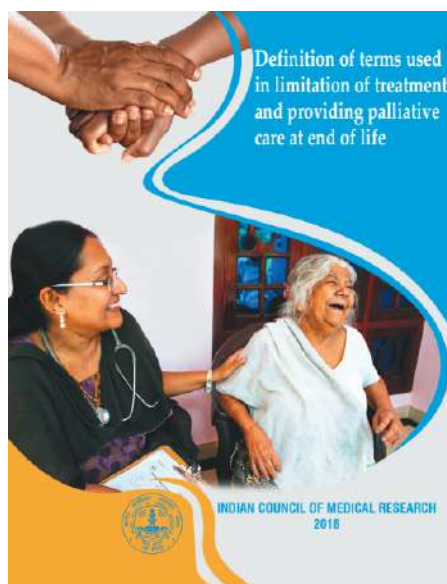
## 1. ICMR National Ethical Guidelines for Biomedical and Health Research Involving Human Participants, 2017



- The guidelines facilitate conduct of biomedical and health research that is consistent with the dignity and well-being of human participants, their biological material/ data and is sensitive to the sociocultural milieu of the country
- It encompasses information on various aspects of biomedical and health research including public and socio behavioural research, genetics and genomics, clinical trials, research during humanitarian emergencies/ disasters, biobanking, datasets, dealing with vulnerable populations or conducting collaborative research, conflicts of interest, use of stored samples, etc
- Guidelines are mandatory to be followed and are regulated under New Drugs and Clinical Trials Rules, 2019
- Downloaded >6000 times (accessed by over 50 countries and 32 regions across India)

**Way forward:** The guidelines are dynamic and will be kept abreast of ethical issues emanating from recent technological and scientific advancements.

## 2. ICMR Report 'Definitions of Terms Used in Limitation of Treatment and Providing Palliative Care at End of Life', 2018



The guidelines provide clarity to terms related to End-of-Life Care (EOLC) and have been useful for clinicians, patients and their families in improving their understanding of the terms used in EOLC and their definitions.

**Way forward:** ICMR plans to come up with a National EOLC Policy in consultation with multidisciplinary experts which will also be useful to the medical fraternity, patients and the concerned families to arrive at appropriate decisions.



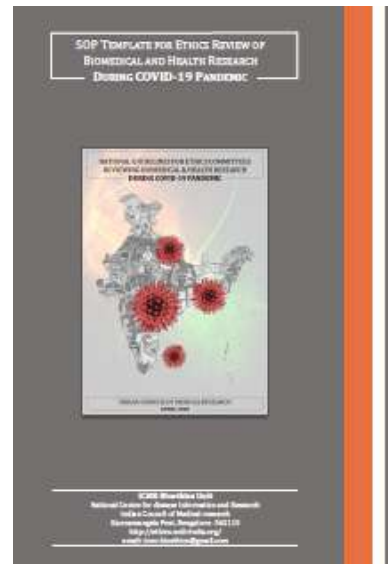
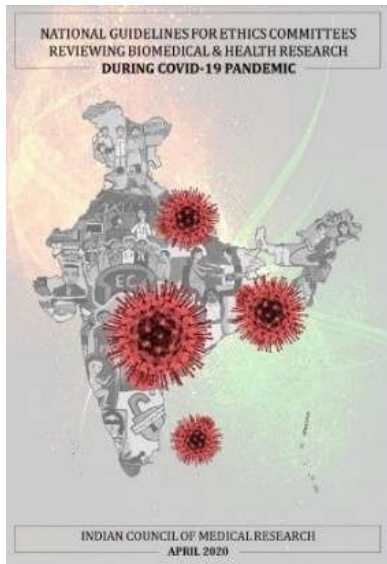


## 5. ICMR National Guidelines for Ethics Committees Reviewing Biomedical & Health Research during COVID-19 Pandemic, 2020

- India was one of the first countries in the world to release the guidelines in the early part of the pandemic
- These guidelines highlight the important facilitatory role that ethics committees must play in supporting the ethical conduct of research in the changed circumstances during the pandemic
- SOP Template for Ethics Review of Biomedical and Health Research during COVID-19 Pandemic

### Impact

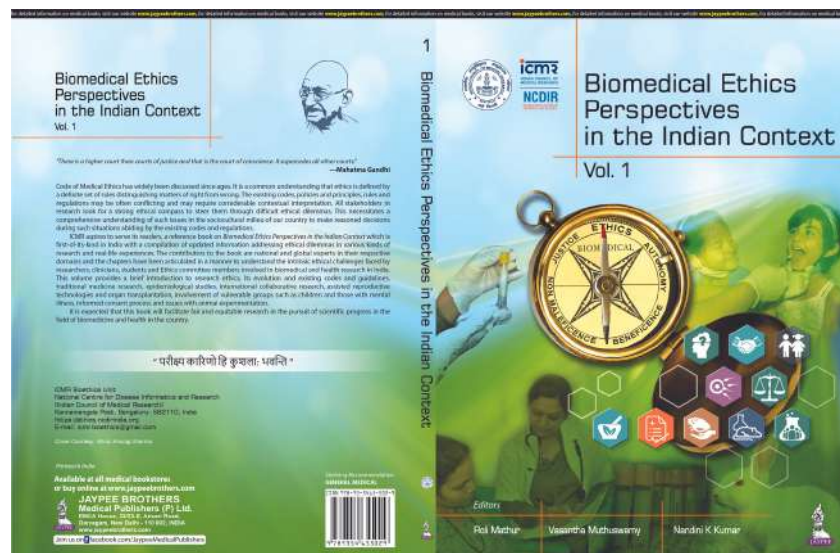
Guidelines have been downloaded more than 3500 times across the world, including India.



## 6. ICMR Reference Book on Bioethics titled 'Biomedical Ethics Perspectives in the Indian Context', 2022

**Overall Purpose:** ICMR Bioethics Unit, under the aegis of ICMR, has prepared the Reference Book to discuss relevant topics addressing ethical aspects in research.

**Salient achievements:** It is the first-of-its-kind in India and has comprehensive and unique compilation of topics with contributions from authors who are leaders in conducting biomedical research. This book would be useful and would serve the needs of every biomedical and health researcher, student, ethics committee member or clinicians by providing them the ability to recognize and manage the ethical challenges associated with research efficiently, especially in a country like India.



## II. ETHICS COMMITTEE

### 7. ICMR - Central Ethics Committee on Human Research (ICMR-CECHR)

- ICMR-CECHR was reconstituted during the COVID-19 Pandemic to undertake nationally relevant high priority review of ICMR led biomedical research and advise ethics policy/ guidelines. ICMR Bioethics Unit serves as the Secretariat for CECHR
- It is registered with Office for Human Research Protections (OHRP, FWA IRB No. IRB00012875) and with Department of Health Research (EC/NEW/INST/2021/1879)
- Has reviewed more than 32 research studies/ policies/ guidelines during the pandemic ensuring a robust ethics review and thus making it possible to conduct research

**Impact:** Has facilitated nationally relevant research, the results of which have been published in nationally & internationally renowned journals & has impacted national policy.

**Way forward:** Will guide the development of all ethics policy documents/ advisories/ guidelines being coordinated by ICMR Bioethics Unit.

## III. CAPACITY BUILDING AND TOOLS

### 8. ICMR Common Forms for Ethics Committee Review, 2018

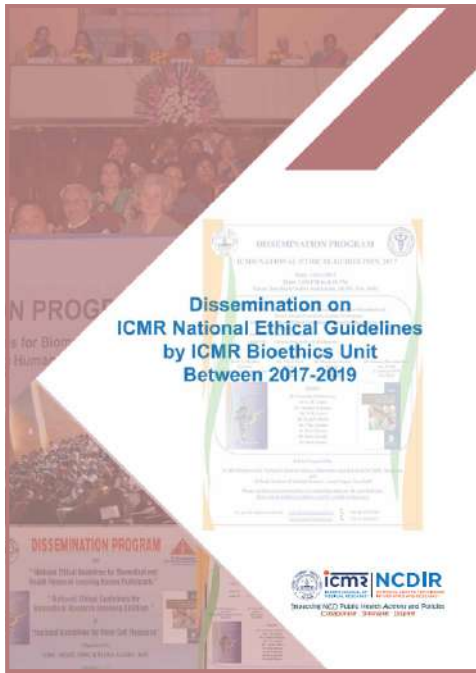
**Overall Purpose:** ICMR Common Forms for Ethics Committee Review were prepared in collaboration with THSTI, DBT to harmonize and unify EC submission across the country as many institutions do not have proper application formats for submission to ethics committees.

It consists of a total of 14 forms including an application form for initial review which provide formats for different types of submissions. These forms can be downloaded and adapted by institutions as per their need since they are available in editable formats.

**Impact:** Downloaded more than 3000 times and have been adopted by ECs of various institutions.

The image shows a screenshot of the 'Application Form for Initial Review'. The form is titled 'Application Form for Initial Review' and includes a header with the ICMR logo and name. Below the header, there are fields for 'Name of the institution', 'EC Ref. No. (if applicable)', and 'EC Ref. No. (if not applicable)'. The form is divided into sections, with 'SECTION A - BASIC INFORMATION' highlighted in yellow. This section includes fields for 'Name of Organization', 'Name of Principal Investigator', 'Department/Institution', 'Date of submission', 'Type of review requested' (with checkboxes for 'Exemption from review', 'Expedited review', and 'Full committee review'), 'Title of the study', 'Principal investigator's name', 'Department and Qualification', 'Department and Institution', and 'Address for communication'. There is also a table for 'Principal Investigator/Student/Postdoc' and 'Co-Investigator/Student/Postdoc' with columns for Name, Department and Qualification, Department and Institution, and Address for communication. At the bottom, there are fields for 'Number of studies where applicant is a', 'Principal Investigator at time of submission', 'Co-Investigator at time of submission', and 'Director of the study'.

The image shows a screenshot of the 'Common Forms for Ethics Committee Review' website. The website has a dark green header with the title 'Common Forms for Ethics Committee Review' and buttons for 'Click for More Details' and 'Send Feedback'. Below the header, there are two columns of links. The left column is titled 'General Instructions' and includes links for 'Download PDF (All Items)', 'Index', 'Initial Review', and 'Annexures'. The right column is titled 'Instructions to fill the word form' and includes links for 'Download MSWord (All Items)' and 'Download'. Below these columns, there is a list of 14 forms, each with a number, a title, and a download icon. The forms are: 1. Expedited Review, 2. Exemption from Review, 3. Continuing Review / Annual report format, 4. Application/Notification form for Amendments, 5. Protocol Violation/Deviation Reporting form (Reporting by case), 6. Serious Adverse Event Reporting Format (Biomedical, Health Research), 7. Premature Termination/Suspension/Discontinuation Report Format, 8. Clinical Trials, 9. Serious Adverse Event Reporting Format (Clinical trials), 10. Human Genetics Testing Research, 11. Social-Behavioral and Public Health Research, 12. Study completion/Final report format, and 13. Format for Curriculum Vitae for Investigators.



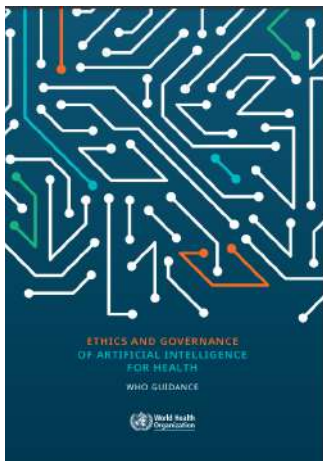
**Overall Purpose:** Several dissemination/ training programs in ethics have been organised to create awareness about ICMR National Ethical Guidelines, DHR - National Ethics Committee Registry for Biomedical and Health Research (NECRBHR) and other relevant regulations in the country.

**Salient scientific achievements:**

- During the last 6 years, more than 200 events have been conducted with participation of around 7000 participants (students, faculty, researchers, EC members, dental & other allied para medical staff etc.) and a consolidated report for the same was prepared and released on 12th February 2020

**Impact:** The programs have helped in disseminating information about the ICMR National Ethical Guidelines and helped in creating awareness about the ethical aspects of Biomedical & Health Research in India.

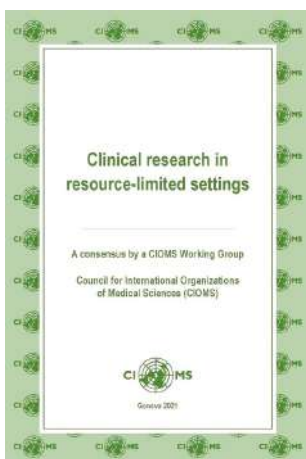
## IV. DESIGNATION AS A WHO COLLABORATING CENTRE (WHO CC) AND INTERNATIONAL INITIATIVES



- ICMR Bioethics Unit was designated as a WHO CC for Strengthening Ethics in Biomedical and Health Research. It is the first such centre in the South East Asia Region.

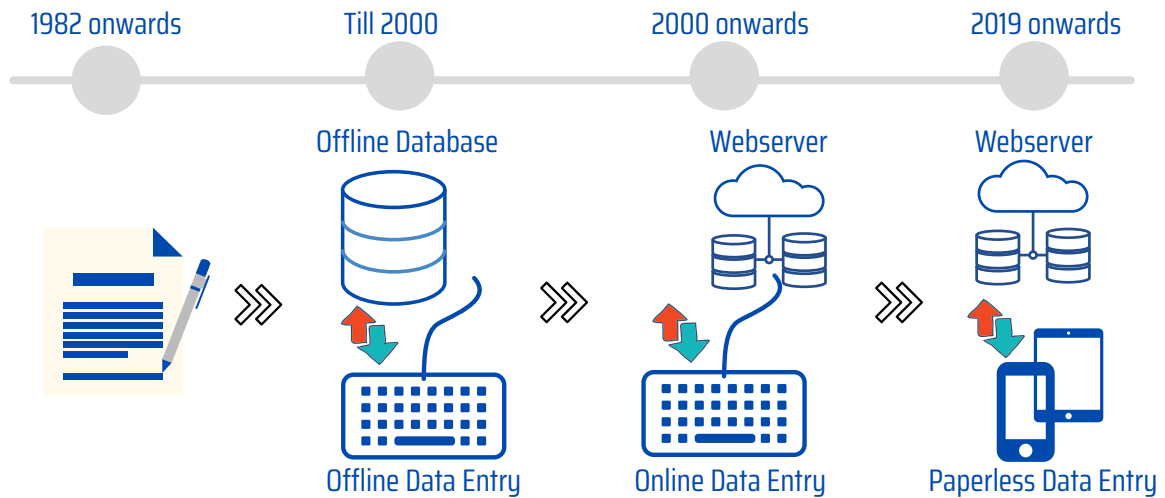
Deliberations as Expert Member of various groups have resulted in the following publications:

- Ethical Standards for research during public health emergencies: Distilling existing guidance to support COVID-19 R&D, WHO March 2020 (Member of WHO Working Group Ethics and COVID-19)
- Allocating Scarce Unproven Interventions during Public Health Emergencies: Insights from the WHO MEURI Framework. The American Journal of Bioethics.2020 Aug 25;20 (9):41-44
- Top five ethical lessons of COVID-19 that the world must learn. Wellcome Open Research. 29 Jan 2021; 6:17
- World Health Organization. COVID-19 and mandatory vaccination: ethical considerations and caveats: policy brief, 13 April 2021.
- World Health Organization. Guidance on 'Ethics and Governance of Artificial Intelligence for Health, 28 June 2021
- Guidelines on 'Clinical Research in Resource-Limited Settings' by Council of International Organizations of Medical Sciences (CIOMS), June 2021



# Technologies

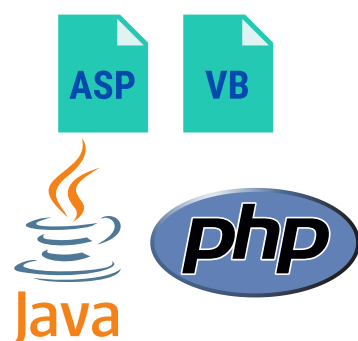
## Evolution of Data Collection and Reporting



- Data conversion and migration of cancer registry archival data since 1982
- In-house software solutions for data collection, quality control and analysis
- Use of standard formats
- Web based and desktop data collection and transmission
- Support to legacy systems
- Data processing for checks on quality and duplicates
- Linking of records and public databases, export, download and data review
- Data conversion from ICD-03 to ICD-10, SNOMED CT to ICD-10
- Data encryption using standard algorithm
- Interoperable data within cancer
- e-Monitoring and feedbacks
- Data analytics for reports and publications
- Multilingual entry for surveys
- Technology support to a network of 300 plus institutions
- Software solutions and database management

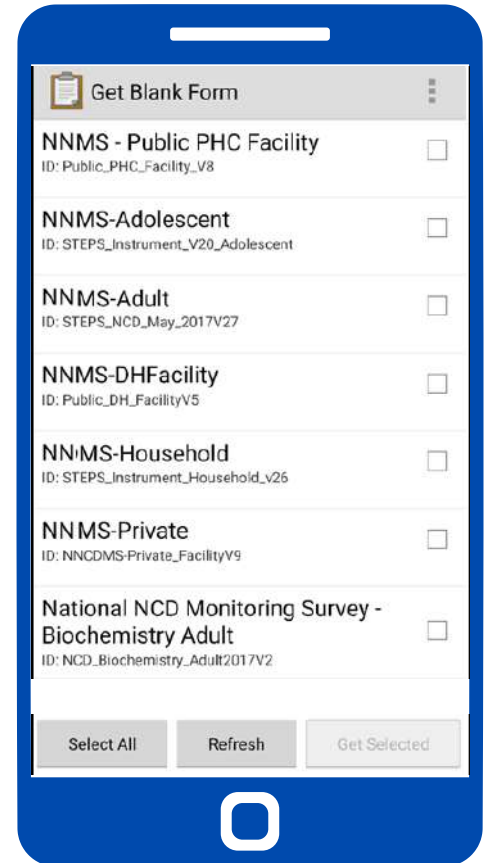


**SNOMED CT**  
The global language of healthcare



# Technology Timeline

- 2001- **NCRP's first website** was designed for the project 'Development of an Atlas of Cancer in India'
- In-house software products for both desktop and web based applications
- 2006- Follow up information collection using **online data collection module**
- 2011 - <https://ncdirindia.org> website was launched
- 2014 - **Copyrights** obtained for two software applications in cancer
- 2015 - **Open-Source** for software development
- 2017 - **Cancer Samiksha portal** for data visualization
- 2017 - **Open Data Kit (ODK)** for surveys
- 2017 - **Tab based data collection**
- 2019 - **Android** app development
- 2021- **Software Development in PHP**
- 2021-Paperless **online data collection e-platform**



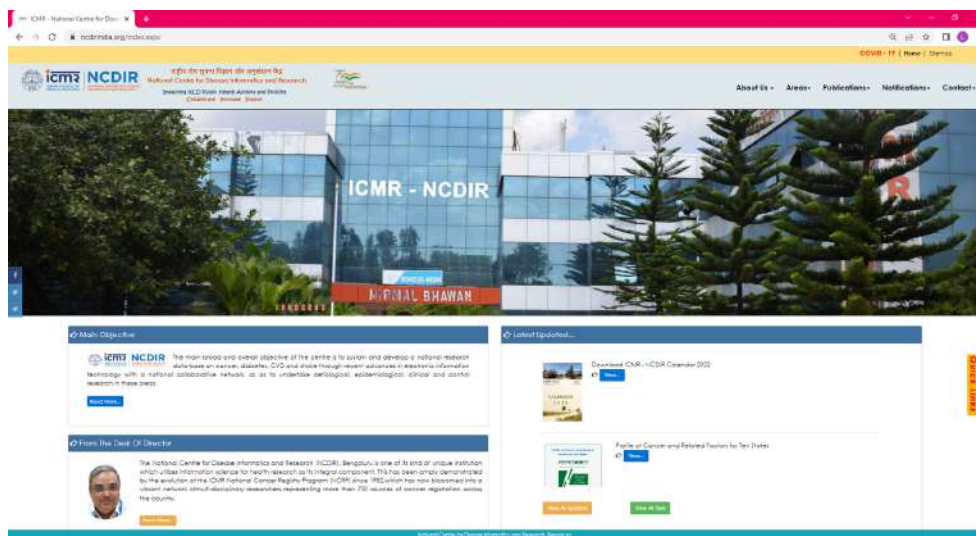
## Cancer Samiksha portal

An interactive data visualization tool providing a quick overview of the leading cancer sites across the nation.

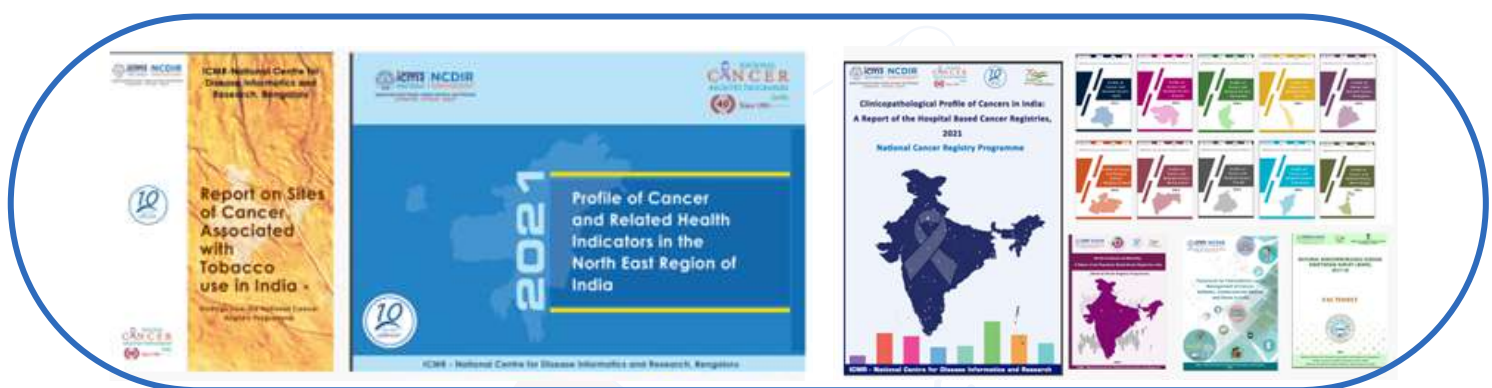
A resource that can be widely used by public health administrators to plan cancer control activities, researchers to evolve epidemiological studies and clinicians for planning cancer treatment strategies in a better way.



**Website designed and developed for ICMR-NCDIR (<https://ncdirindia.org>).  
Migration of all other projects to the respective sub-domain under main domain**

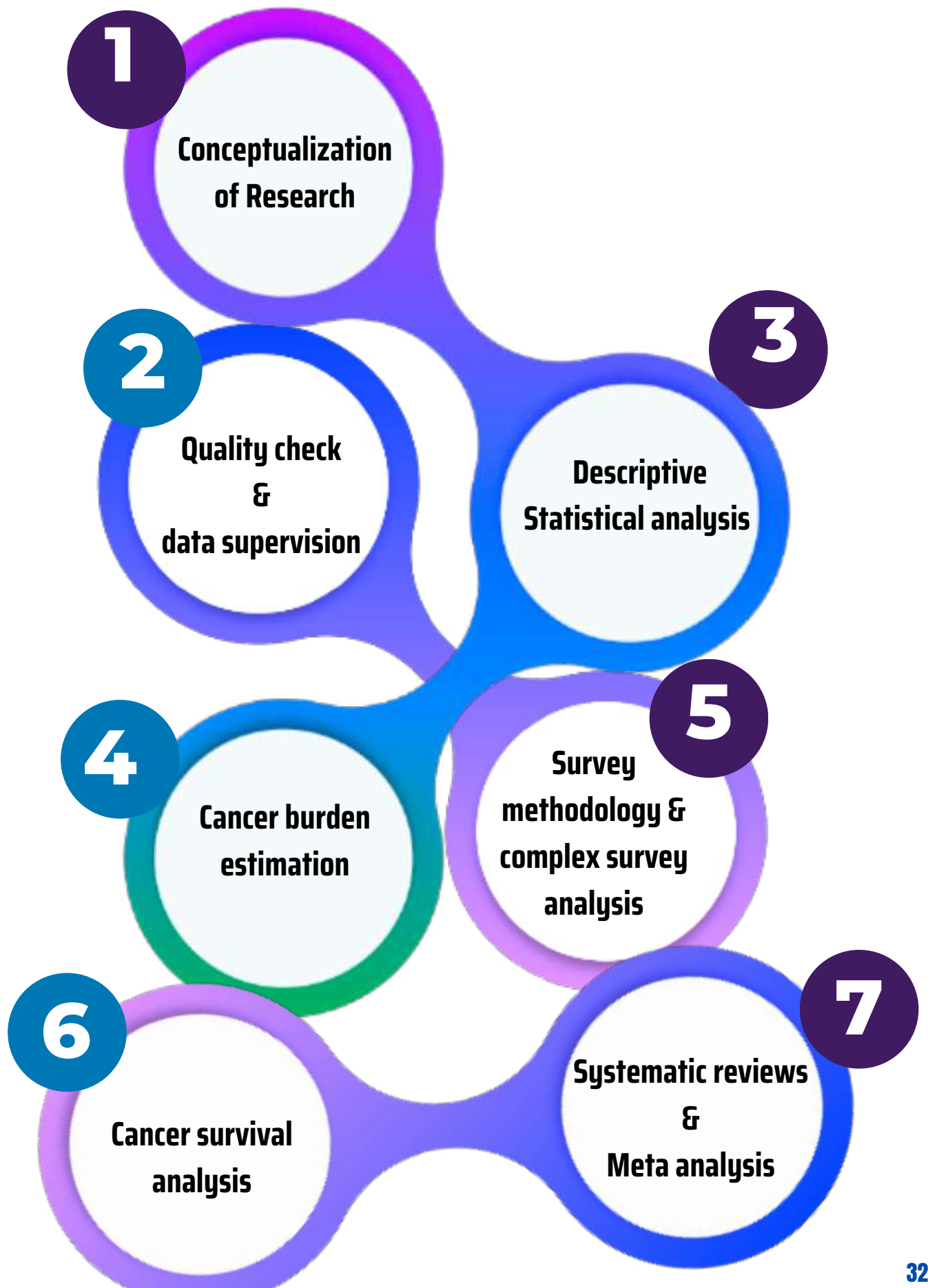


**Designing of the web version of the various reports and a module to launch these web versions of the report online mode.**



- A Report on Cancer Burden in North Eastern States of India -2017
- Factsheet National Noncommunicable Disease Monitoring Survey (NNMS) 2017-18
- National Noncommunicable Disease Monitoring Survey (NNMS) 2017-18
- Report of National Cancer Registry Programme- 2020
- Development of an Atlas of Cancer in Haryana State- 2020
- Profile of Cancer and Related Health Indicators in the North East Region of India - 2021
- Report on Sites of Cancer Associated with Tobacco use in India- 2021
- Profile of Cancer and Related Factors for Ten States -2021
- Clinicopathological Profile of Cancers in India: A Report of the Hospital Based Cancer Registries -2021
- Stroke Incidence and Mortality: A Report of the Population Based Stroke Registries, India -2021
- Framework for Telemedicine use in Management of Cancer, Diabetes, Cardiovascular Disease and Stroke in India -2021

# Statistical Accomplishments





Statistical scientists of ICMR-NCDIR play a key role beginning from protocol writing, development of data collection tool, data quality supervision, analysis and dissemination of research findings.

## Following are the key achievements made by the statistical team

**1**  
Burden of disease estimates for cancer at national and sub-national level



**2**  
Survival estimates for selected cancer sites



**3**  
Development of rigorous quality checks



**4**  
Methods to handle missing data and Bayesian analysis



**5**  
Data cleansing and editing



**6**  
Advanced statistical modelling exercises



**7**  
Statistical algorithms to generate incidence, mortality rates, risk & trends of cancer for use in reports & visualization dashboards (cancer samiksha)



**8**  
Development of survey methodology, validation techniques using artificial intelligence methods



**9**  
Development of standardization procedures for estimation of NCD risk factors & risk modelling



**10**  
Meta-analysis



**11**  
Data preparation for submission to international calls for Indian cancer datasets



**12**  
Teaching and training



# Policy & Guidelines

## Framework For Telemedicine Use In Management of Noncommunicable Diseases

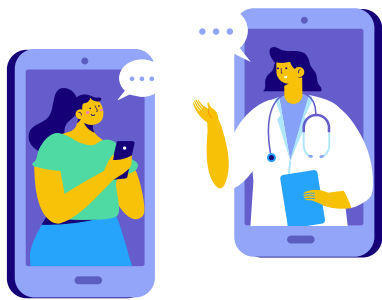
E-book on “Framework for Telemedicine use in Management of Cancer, Diabetes, Cardiovascular Disease and Stroke in India” released online on 25th January 2021 by the former Union Minister for Health and Family Welfare, Dr. Harsh Vardhan.



### Overall purpose

To provide framework for public and private health care providers for the management of major NCDs and using telemedicine to ensure continuity of care.

### Salient points



The framework for use of telemedicine was formulated to guide medical practitioners to adopt telemedicine for NCD care.

- It includes criteria for using telemedicine in the care of NCDs, situations for tele-consultation and health conditions when telemedicine should not be used
- It helps in bridging the gap between patients and health care providers at primary, secondary, and tertiary care facilities

### Public health impact



- a) The guidelines provide a practical way of adopting telemedicine in clinical practice for managing cardiovascular diseases, stroke, diabetes, and cancer, and shall help in building a continuum of care for these long-term diseases.
- b) The guidelines shall help in the provision of health care through the NCD clinics and were shared with all Depts of Health of State and UTs for adoption in their NPCDCS programme.
- c) Guidelines have been disseminated widely to a wide range of medical doctors across India.

# Policy on Data Processing and Disclosure

- Ensure a stable, reliable, ethical and legally compliant framework for data collection, use and dissemination
- 'Data' is information relating to a data subject with disease (like cancer)



## AUTHORISATION

- Institutions of population based registries (PBR) collect and transfer data from medical records of patients using standard protocols
- ICMR-NCDIR ensures data collation and processing within the policy framework



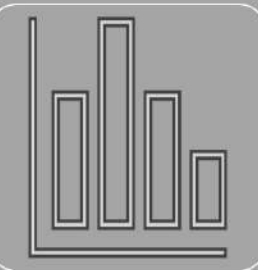
## PURPOSE

- Generate reliable data on the magnitude, type and patterns of cancer and other NCDs
- Undertake epidemiological studies based on results of registry data
- Help in designing, planning, monitoring and evaluation of disease control activities and patient care under the relevant national health programmes



## ROLE OF ICMR-NCDIR

- Implement quality control mechanisms to ensure data is accurate and reliable
- Maintain data confidentiality and security
- Release national cancer registry reports at regular intervals



## DATA SHARING

- Personal data shall not be disclosed to any third party
- Anonymized data may be requested for any further research
- Any data request shall be verified as per guidelines of policy

# Our Environmental Policy

At ICMR Campus, Bengaluru

Training and awareness



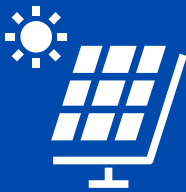
Effective Monitoring of Activities



Biodiversity mapping



Solar Energy use



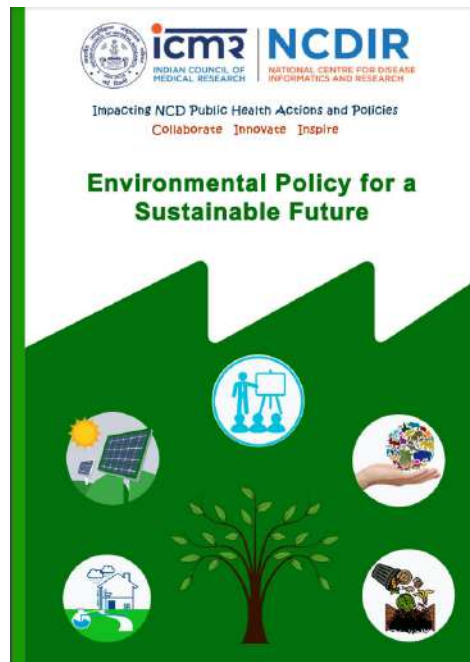
Waste management



No Tobacco use

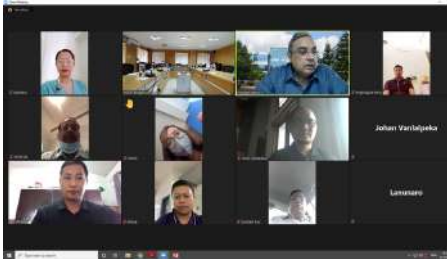


Rain water harvesting

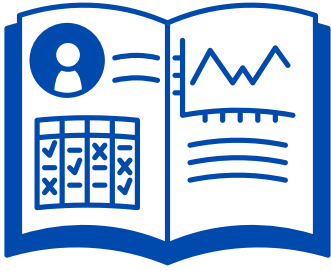


# Capacity Building

- Internship of two to six months for post graduate students
- Cancer Epidemiology and Surveillance training (CanEST) Programme -training of Research Scientists working in cancer registries
- Training on Ethics
- Training workshops for registry participants

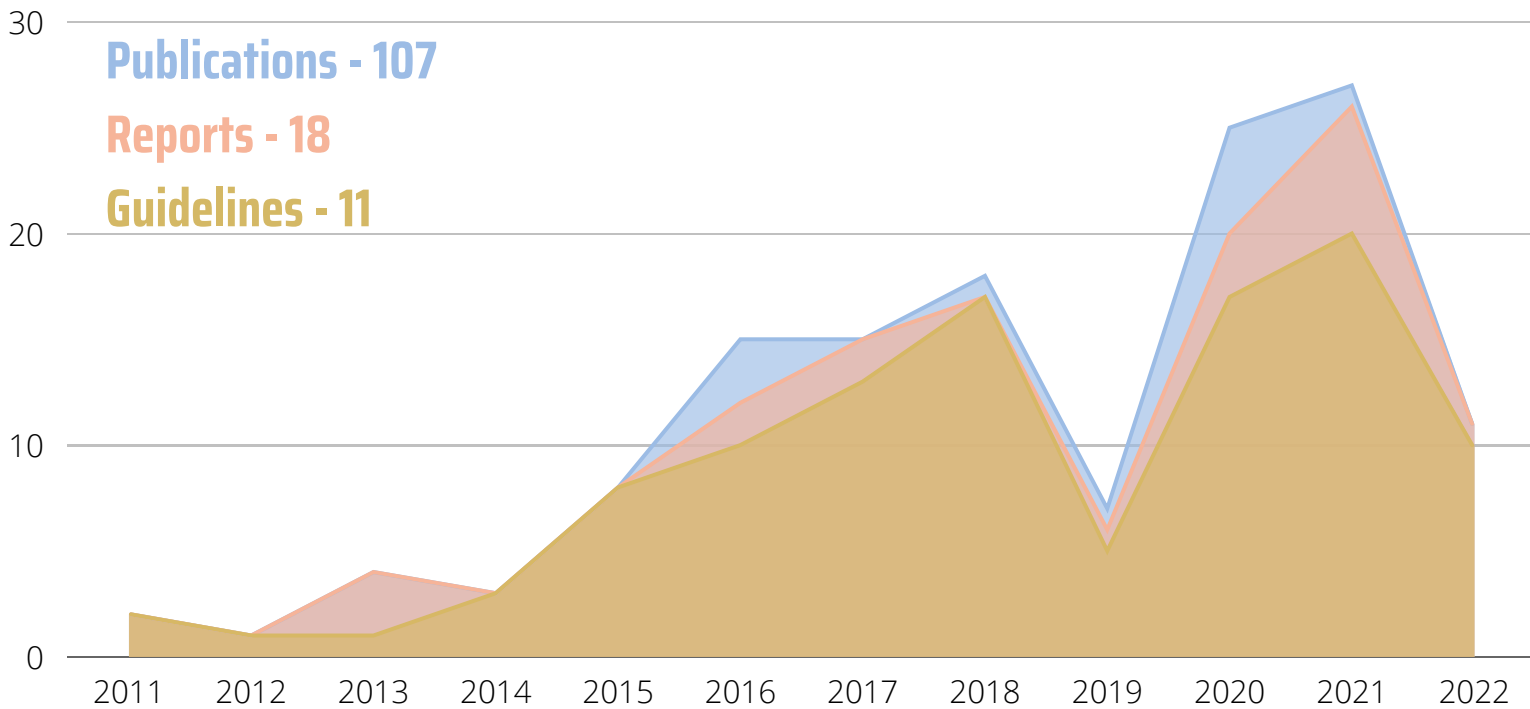


# Publications

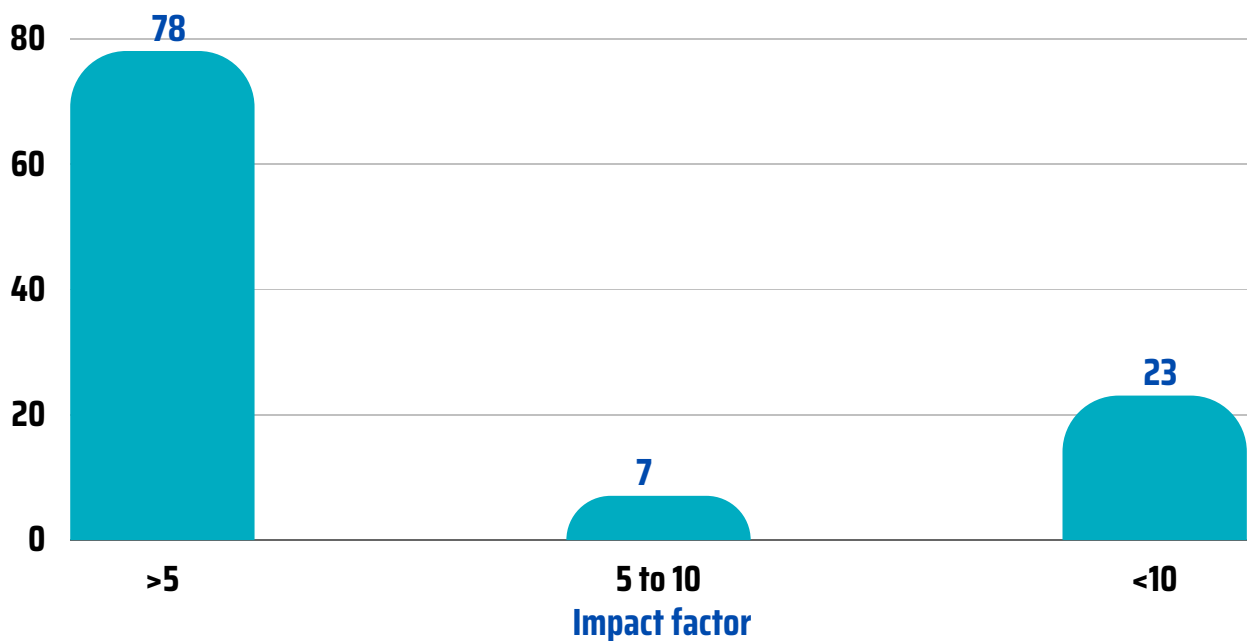


ICMR-NCDIR has had over 100 publications, many in high impact journals. Over the years we have summarised our registry data into reports.

## Total Number of Publications / Reports / Guidelines (2011 - 2022)



## Publications (2011-2022) based on Impact factor



# Reports

## 2021

1. Stroke Incidence and Mortality: A Report on Population Based Stroke Registries in India
2. Clinicopathological Profile of Cancer in India: A report of the Hospital Based Cancer Registries, 2021
3. Profile of Cancer and Related Factors for Ten States
4. Annual Highlights 2020-2021
5. Report on Sites of Cancer Associated with Tobacco use in India
6. Profile of Cancer and Related Health Indicators in the North East Region of India – 2021
7. National Non-Communicable Disease Monitoring Survey (NNMS) 2017-18

## 2020

1. Development of an Atlas of Cancer in Haryana State
2. Annual Highlights 2019-2020
3. Report of National Cancer Registry Programme
4. Dissemination Report on ICMR National Ethical Guidelines
5. Annual Highlights 2018-2019
6. Environment Policy for a Sustainable Future

## 2019

1. Annual Highlights 2017-2018

## 2018

1. ICMR Report – “Definition of Terms Used in Limitation of Treatment and Providing Palliative Care at End of Life
2. ICMR common forms for Ethics Committees

## 2017

1. Annual Highlights 2016-2017
2. A Report on Cancer Burden in North Eastern States of India – 2017
3. Cancer Registry Abstract CRAB, The News letter of NCRP: Vol.22.No 1. November 2017
4. ICMR-WHO Report on Regional and National Consultation for Ethical Guidelines for Biomedical and Health Research

# Reports

## 2016

1. Three -year Report on Population Based Cancer Registries 2012-2014 (Report of 27 PBCRs in India) : 2016
2. Consolidated Report of Hospital Based Cancer Registries 2012-2014. An Assessment of the Burden and Care of Cancer Patients: March 2016
3. Cancer Registry ABSTRACT CRAB. The News Letter of NCRP: Vol. XXI No.1. October 2016

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## 2014

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# Guidelines

## 2021

1. Framework for Telemedicine use in Management of Cancer, Diabetes, Cardiovascular Disease and Stroke in India

## 2020

1. National Guidelines for Ethics Committees Reviewing Biomedical and Health Research - During COVID-19 Pandemic
2. Guidance for appropriate recording of COVID-19 related deaths in India
3. Information on COVID-19 and NCDs
4. SOP Template for Ethics Review of Biomedical and Health Research During Covid-19 Pandemic

## 2019

1. ICMR Policy on Research Integrity and Publication Ethics (RIPE)

## 2018

1. Handbook on National Ethical Guidelines for Biomedical and Health Research Involving Human Participants

## 2017

1. National Ethical Guidelines for Biomedical and Health Research involving Human Participant
2. National Ethical Guidelines for Biomedical Research Involving Children
3. NCDIR Policy on Data Processing and Disclosure

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## 2014

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## 2012

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## 2011

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# MEDIA & OUTREACH ACTIVITIES

Over the last decade tremendous efforts have been made to promote and showcase our research via various media platforms.

The ICMR-NCDIR communication unit has worked closely with staff across the institute to commission, develop and edit content for our communications channels, including the website, social media and reports.

ICMR-NCDIR joined LinkedIn in April, 2022



**721**  
**MEDIA MENTIONS**

2011

In 2011, the advocacy material mainly consisted of newsletters



2013



ICMR-NCDIR joined Twitter and Facebook in 2013



Press releases have been developed and shared with the media for dissemination of reports and research publications.

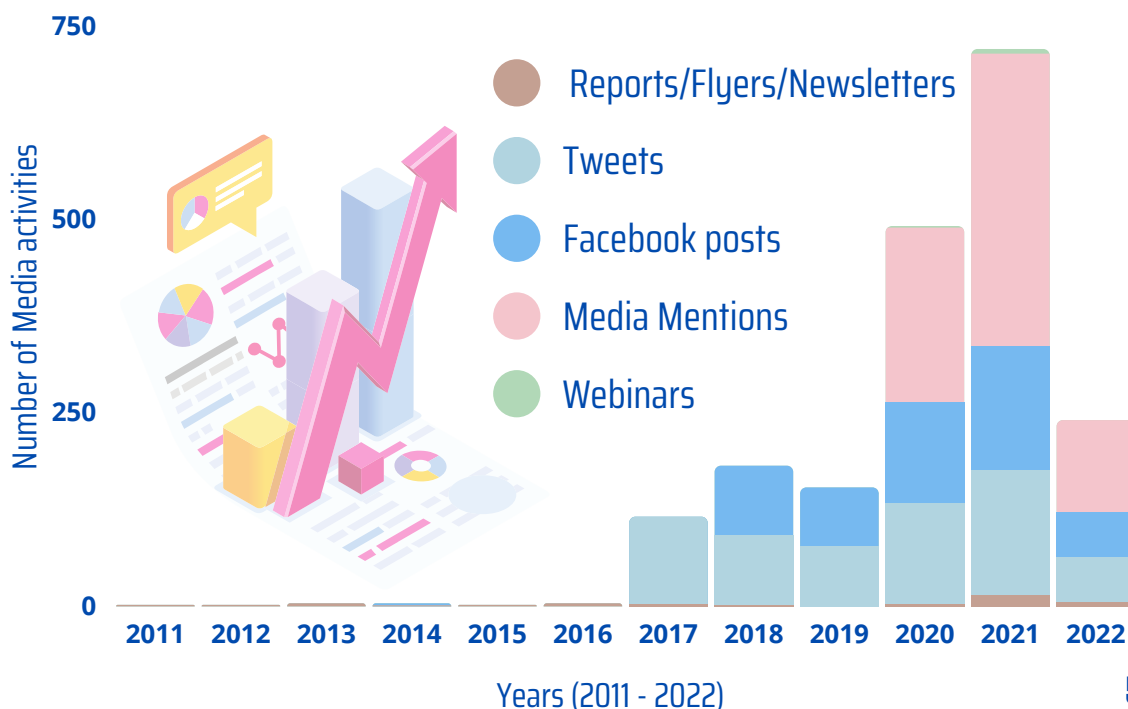


2021

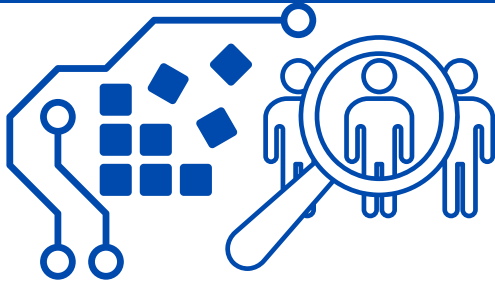


**PUBLIC WEBINARS DURING HEALTH AWARENESS DAYS**

## Number of Media Activities (2011-2022)



# The way forward.....



## Strengthening Disease Informatics

## Establishing NCD Surveillance

### Stakeholder Engagements

- Collaborations
- Partnerships



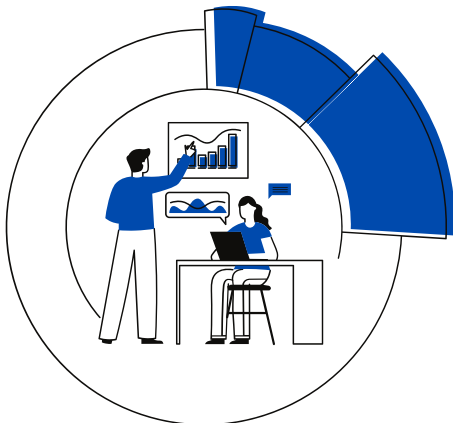
### Bridging data gaps

- Prospective data collection
- Linkages with data sets



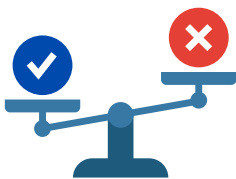
### Advanced Analytics

- Data analysis
- Data science, Big data
- IT Solutions
- Dissemination of products



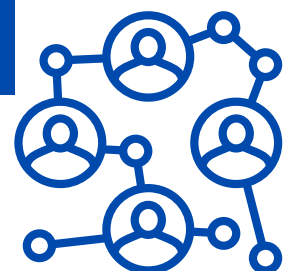
### Translation of Knowledge to Action

- Linkages with policy and decision makers at national and state levels
- Multisectoral collaborations



### Ethics & Research Governance

- Policy, Governance and Capacity building



### Building Networks

# SCIENTIFIC ADVISORY COMMITTEE

Chairperson	Member Secretary
<p><b>Dr. G K Rath</b> Former Head, National Cancer Institute (2nd Campus AIIMS, Jhajjar, Haryana) &amp; Chief, Dr. B R Ambedkar Institute Rotary Cancer Hospital AIIMS, New Delhi</p>	<p><b>Dr. Prashant Mathur</b> Scientist G and Director ICMR-National Centre for Disease Informatics and Research, Bengaluru.</p>

## Members

<p><b>Dr. P.C. Gupta</b> Director Healis-Sekhsaria Institute of Public Health, Navi Mumbai</p>	<p><b>Dr. A C Katak</b> Director Dr. B.B. Borooah Cancer Institute, Guwahati</p>	<p><b>Dr A.K. Das</b> Professor of Medicine &amp; Head of Endocrinology, Pondicherry Institute of Medical Sciences, Pondicherry</p>	<p><b>Dr. Vasantha Muthuswamy</b> Former Sr. Deputy Director General (BMS), ICMR, Mumbai</p>
<p><b>Prof. N. Sreekumaran Nair</b> Head, Department of Biostatistics JIPMER, Puducherry</p>	<p><b>Prof. N K Arora</b> Executive Director The INCLIN Trust International, New Delhi</p>	<p><b>Prof. Prem Pais</b> Professor of Medicine Division of Clinical Research &amp; Training, St. John's Research Institute, Bengaluru</p>	<p><b>Dr. P Satishchandra</b> Sr. Consultant in Neurology &amp; Adviser Apollo Hospitals, Bengaluru</p>

## Ex-officio Members

<p><b>The Head</b> Division of NCD ICMR Hqrs. New Delhi</p>	<p><b>The Director</b> International Institute for Population Science, Mumbai</p>	<p><b>The Registrar General &amp; Census Commissioner</b> New Delhi</p>	<p><b>The Executive Director</b> National Health Systems Resource Centre, New Delhi</p>
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# CENTRAL ETHICS COMMITTEE ON HUMAN RESEARCH (CECHR)

Chairperson	Vice-Chairperson	Member Secretary	
<p><b>Dr. Vasantha Muthuswamy</b> Senior Deputy Director General (Retd.), ICMR and President, Forum for Ethics Review Committees in India, Mumbai</p>	<p><b>Dr. Narendra Kumar Arora</b> Executive Director The INCLEN Trust International New Delhi</p>	<p><b>Dr. Roli Mathur</b> Scientist F and Head, Bioethics Unit, ICMR - National Centre for Disease Informatics and Research, Bengaluru</p>	
Members / Alternate Members			
<p><b>Dr. Anuradha Rose</b> Professor of Community Health &amp; Head Bioethics, Christian Medical College, Vellore</p>	<p><b>Dr. PP Bapsy</b> Medical Oncologist &amp; Former Director, Kidwai Memorial Institute of Oncology, Bengaluru</p>	<p><b>Dr Bikash Medhi</b> Professor of Pharmacology, Post Graduate Institute of Medical Education &amp; Research, Chandigarh</p>	<p><b>Dr Nilima Kshirsagar</b> National Chair of Clinical Pharmacology, Indian Council of Medical Research (ICMR), Mumbai</p>
<p><b>Dr Arti Kapil</b> Professor, Department of Microbiology, AIIMS, New Delhi</p>	<p><b>Dr. Bushan Tilak Kaul</b> Advocate, High Court, Delhi &amp; Supreme Court of India, New Delhi</p>	<p><b>Ms. Dhvani Mehta</b> Co-Founder, Vidhi Centre for Legal Policy New Delhi</p>	<p><b>Dr. OV Nandimath</b> Professor of Law, National Law School of India University, Bengaluru</p>
<p><b>Dr. Shuba Kumar</b> Social Scientist, Samarth, Chennai</p>	<p><b>Dr. Rama Baru</b> Professor, Centre of Social Medicine and Community Health, Jawaharlal Nehru University, New Delhi</p>	<p><b>Dr Medha Joshi</b> Consultant - Information Services, National Cancer Grid, Memorial Centre, Mumbai</p>	<p><b>Dr Shalini Bharat</b> Director and Professor, Centre for Health &amp; Social Sciences, School of Health Systems Studies, Mumbai</p>
<p><b>Mr Prasanna Shirol</b> Co-founder and Executive Director, Organisation for Rare Diseases India (ORDI), Bengaluru</p>		<p><b>Mr. Manoj Pardeshi</b> General Secretary and Chief functionary of National Coalition of People Living with HIV (PLHIV) in India, New Delhi</p>	

# RESEARCH AREA PANEL ON CANCER

Chairperson	Member Secretary
<p><b>Dr. G K Rath</b> Former Head, National Cancer Institute (2nd Campus AIIMS, Jhajjar, Haryana) &amp; Chief, Dr. B R Ambedkar Institute Rotary Cancer Hospital. AIIMS, New Delhi</p>	<p><b>Dr. Prashant Mathur</b> Scientist G and Director ICMR - National Centre for Disease Informatics and Research, Bengaluru</p>

## Members

<p><b>Dr. P.C. Gupta</b> Director Healis-Sekharia Institute of Public Health, Navi Mumbai</p>	<p><b>Dr. A C Katak</b> Director Dr. B.B. Borooah Cancer Institute, Guwahati</p>	<p><b>Dr. P.P. Bapsy</b> (Ex-Director, Kidwai Memorial Institute of Oncology, Bengaluru) Bengaluru</p>	<p><b>Dr R. Sankaranarayanan</b> Senior Scientific Advisor, RTI International-India WHO-IARC Coimbatore</p>
<p><b>Dr. Rekha V. Kumar</b> Senior Consultant (Histopathology) &amp; Head, Department of Pathology Sri Shankara Cancer Hospital and Research Centre, Bengaluru</p>	<p><b>Dr Sandeep Kumar</b> Consultant Surgeon Lucknow</p>	<p><b>Dr Yogesh Verma</b> Professor Department of Pathology Sikkim Manipal Institute of Medical Sciences, Gangtok</p>	

# RESEARCH AREA PANEL ON STROKE

Chairperson	Member Secretary
<p><b>Dr. P Satishchandra</b> Sr. Consultant in Neurology &amp; Adviser Apollo Hospitals, Bengaluru</p>	<p><b>Dr. Prashant Mathur</b> Scientist G and Director ICMR - National Centre for Disease Informatics and Research, Bengaluru</p>

## Members

<p><b>Dr. P.N Sylaja</b> Professor of Neurology, Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Thiruvananthapuram</p>	<p><b>Dr. M V Padma Srivastava</b> Professor &amp; Head Department of Neurology &amp; Chief, Neurosciences, AIIMS, New Delhi</p>	<p><b>Dr. Jeyaraj Durai Pandian</b> Principal and Professor of Neurology Christian Medical College, Ludhiana</p>	<p><b>Dr. G. Gururaj</b> Former Senior Professor &amp; Director, NIMHANS, Bengaluru</p>
<p><b>Dr. Arvinda H R</b> Additional Professor Department of Neuroimaging and Interventional Radiology NIMHANS, Bengaluru</p>	<p><b>Dr. Shailesh B Gaikewad</b> Professor &amp; Head Department of Neuroimaging and Interventional Neuroradiology, Neurosciences Centre, AIIMS, New Delhi</p>	<p><b>Dr. D K Subbakrishna</b> Former Professor &amp; Head Department of Biostatistics &amp; Dean (Basic Sciences) NIMHANS, Bengaluru</p>	

# RESEARCH AREA PANEL ON CARDIOVASCULAR DISEASES

Chairperson	Member Secretary
<b>Dr. Prem Pais</b> Professor of Medicine Division of Clinical Research & Training, St. John's Research Institute, Bengaluru	<b>Dr. Prashant Mathur</b> Scientist G and Director ICMR - National Centre for Disease Informatics and Research, Bengaluru

## Members

<b>Dr. Rajeev Gupta</b> Senior Consultant of Cardiology Jaipur	<b>Dr. P P Mohanan</b> Director and Head Department of Cardiology Westfort Hi-Tech Hospital, Thrissur	<b>Dr. Bhanu Duggal</b> Professor & HOD Department of Cardiology All India Institute of Medical Sciences, Rishikesh
<b>Dr. Ambuj Roy</b> Professor of Cardiology All India Institute of Medical Sciences, New Delhi	<b>Prof. N. Sreekumaran Nair</b> Head, Department of Biostatistics JIPMER, Puducherry	

# RESEARCH AREA PANEL ON DIABETES

Chairperson	Member Secretary
<b>Dr. A.K. Das</b> Professor of Medicine & Head of Endocrinology, Pondicherry Institute of Medical Sciences, Pondicherry	<b>Dr. Prashant Mathur</b> Scientist G and Director ICMR - National Centre for Disease Informatics and Research, Bengaluru.

## Members

<b>Prof. Anoop Misra</b> Chairman, Fortis-C-DOC Centre of Excellence for Diabetes, Metabolic Diseases & Endocrinology, New Delhi	<b>Dr. V Mohan</b> President Diabetes Specialties Centre & Madras Diabetes Research Foundation, Chennai	<b>Prof. KR Thankappan</b> Professor Department of Public Health and Community Medicine
<b>Prof. Mala Dharmalingam</b> Consultant Clinical Endocrinologist & Diabetologist, Bangalore Endocrinology & Diabetes Research Center Bengaluru	<b>Dr. R. M. Pandey</b> Professor & Head Department of Biostatistics All India Institute of Medical Sciences, New Delhi	<b>Dr Lakshmy R</b> Professor Cardiac Biochemistry All India Institute of Medical Sciences, New Delhi

# Scientific Staff at ICMR-NCDIR

Sl. No.	Name	Present Designation	Tenure at ICMR- NCDIR
1	Dr. Prashant Mathur	Director	25-05-2016 to till date
2	Dr. A Nandakumar	Scientist 'G' and Director-in-Charge	11-09-1991 to 24-05-2016
3	Dr. T Ramnath	Scientist-F	04-11-2004 to 31-05-2013
4	Dr. Roli Mathur	Scientist-F	27-07-2016 to till date
5	Dr. Sukanya R	Scientist-E	01-09-2016 to till date
6	Dr. Anita Nath	Scientist-E	20-06-2019 to till date
7	Mrs. F S Roselind	Scientist-E	25-09-2014 to till date
8	Dr. Vani Srinivas	Scientist-E	03-06-2021 to till date
9	Dr. Bency Joseph	Scientist-E	16-09-2021 to till date
10	Dr. Sathya Prakash M	Scientist-D	10-06-2013 to 16-11-2018
11	Dr. Meesha Chaturvedi	Scientist-D	04-11-2013 to till date
12	Dr. K Vaitheeswaran	Scientist-D	22-08-2012 to till date
13	Mrs. Priyanka Das	Scientist-D	19-02-2015 to till date
14	Mr. Sudarshan K L	Scientist-D	04-03-2015 to till date
15	Dr. Manikandan S	Scientist-D	22-07-2021 to 11-01-2022
16	Dr. Madhusudan M	Scientist-D	13-10-2021 to till date
17	Dr. Shakuntala T S	Scientist-C	04-05-2017 to till date
18	Mr. Sathish Kumar K	Scientist-C	03-05-2013 to till date
19	Mr. Vinay Urs K S	Scientist-C	11-02-2015 to till date
20	Dr. Debjit Chakraborty	Scientist-B	24-03-2015 to 05-03-2018
21	Mr. V Raju Naik	Scientist-B	01-05-2015 to 03-05-2018
22	Dr. Gokul S	Scientist-B	08-05-2019 to till date
23	Dr. H Deepadarshan	Scientist-B	23-05-2019 to till date
24	Mrs. R Thilagavati	Scientist-B	01-11-2019 to till date
25	Dr. Kavyashree S P	Scientist-B	15-09-2021 to till date
26	Dr. Dileep G	Scientist-B	17-09-2021 to till date
27	Dr. Jayasankar	Scientist-B	21-03-2022 to till date

# Technical Staff at ICMR-NCDIR

Sl. No.	Name	Present Designation	Tenure at ICMR- NCDIR
28	Mr. V Ramachandran	Senior Technical Officer	11-03-2021 to 08-07-2022
29	Mr. B K Kirubakaran	Senior Technical Officer	25-03-2021 to 08-07-2022
30	Mr. V Ramesh	Technical Officer - C	16-03-2021 to till date
31	Mr. Rakesh Kumar Yadav	Technical Officer - C	18-03-2021 to till date
32	Mr. A Jeyakumar	Technical Officer-C	18-02-2021 to 27-06-2022
33	Mrs. J Amudhini	Social Worker	24-03-2021 to 30-11-2021
34	Mr. Mahamad Asif M Mansuri	Sr. Technical Officer - I	05-04-2021 to till date
35	Mr. Sreerama	Sr. Technician-3	08-04-2013 to 31-05-2018
36	Mrs. K R Chandrika	Technical Officer-A	03-05-2013 to till date
37	Mr. N Sureshkumar	Technical Officer-A	19-12-2014 to till date
38	Mr. Monesh B Vishwakarma	Technical Officer-A	24-12-2014 to till date
39	Mr. Stephen S	Technical Officer-A	30-12-2014 to till date
40	Mrs. Rani S	Technical Officer-A	02-08-2021 to till date
41	Mr. Sunil Babu K	Technical Assistant	08-03-2021 to till date
42	Mr. Rahul Rajendra Koli	Technical Assistant	18-04-2017 to till date
43	Mr. R Ranganathan	Senior Technician - 2 (Driver)	15-03-2021 to 22-06-2022
44	Mr. Sanjeev Kumar	Technician - C	05-03-2021 to till date
45	Mr. T M Loganathan	Technician - 2	07-04-2021 to till date
46	Mr. D Gunasekaran	Technician - 1	17-02-2021 to 17-01-2022
47	Mr. A Mohan	Technician - 1	22-02-2021 to till date
48	Mr. T Magesh	Technician - 1	22-02-2021 to 08-07-2022
49	Mr. S Harinarayana	Technician-A	24-01-2022 to till date
50	Mr. M Rajendra	Staff Car Driver (Special Grade)	16-4-1993 to till date
51	Mr. P Krishnamoorthy	Driver	22-02-2021 to till date
52	Mr. Kishan Kumar	Driver	19-03-2015 to 30-06-2016
53	Mr. Rajesh R	Driver	07-03-2018 to 03-08-2018
54	Mr. B Harshavardana	Field Attendant - I	17-02-2021 to 22-06-2022

## Technical Staff at ICMR-NCDIR

Sl. No.	Name	Present Designation	Tenure at ICMR- NCDIR
55	Mr. Shashwat Lalsinh Dodia	Lab. Attendant - I	05-04-2021 to 08-07-2022
56	Mr. Vijay Kumar K Patni	Lab. Attendant - I	05-04-2021 to 08-07-2022
57	Mrs. D Sharda	Lab Assistant	05-07-2021 to till date

## Administration Staff at ICMR-NCDIR

Sl. No.	Name	Present Designation	Tenure at ICMR- NCDIR
58	Mr. N M Ramesha	Administrative Officer	25-09-2014 to till date
59	Mr. Jitendra Kumar	Accounts Officer	09-07-2019 to 14-02-2020
60	Mr. C Gopalakrishnan	Accounts Officer	08-03-2021 to 20-10-2021
61	Mr. B Durairaj	Section Officer	01-03-2021 to till date
62	Mr. C Somasekhar	Accounts Officer (Jr. Gr.)	25-09-2014 to 27-06-2018
63	Ms. Kaveri M Kumbhar	Assistant	02-05-2016 to 05-03-2021
64	Mr. Ashok Arora	Assistant Accounts Officer	16-12-2020 to till date
65	Mrs. Latha V	Upper Division Clerk	12-03-2015 to till date
66	Mr. Harish Siddaraju	Upper Division Clerk	03-06-2015 to till date
67	Mr. D N Narayanswamy	Multi-Tasking Staff	11-03-2015 to till date
68	Mr. Ramachandraiah H B	Multi-Tasking Staff	06-01-2017 to 20-06-2017
69	Mr. Rajesh Kumar M	Multi-Tasking Staff	19-01-2017 to 15-06-2017
70	Mr. J Krishna Pratap	Multi-Tasking Staff	07-06-2017 to 05-03-2018
71	Mr. Yerram Harikumarreddy	Multi-Tasking Staff	31-05-2017 to 30-06-2022
72	Mr. Prashantha M	Multi-Tasking Staff	19-06-2017 to till date
73	Mr. Kandula Vijaykumar	Multi-Tasking Staff	19-03-2018 to till date
74	Mr. Kafeel Ahmed T. R	Multi-Tasking Staff	10-04-2018 to 06-01-2020
75	Mr. M Sravan Reddy	Multi-Tasking Staff	02-11-2018 to 06-11-2020







**ICMR**

## **NATIONAL CENTRE FOR DISEASES INFORMATICS & RESEARCH**

II FLOOR OF NIRMAL BHAWAN, ICMR COMPLEX, POOJANHALLI ROAD, OFF NH-7,  
ADJACENT TO TRUMPET FLYOVER OF BIAL KANNAMANGALA, BENGALURU, 562110



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