

Implementation Research India Summit IRIS-2022

30th& 31st May 2022

Summary Report



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NIIRNCD
NATIONAL INSTITUTE FOR
IMPLEMENTATION RESEARCH ON
NON-COMMUNICABLE DISEASES

Implementation Research India Summit

IRIS-2022

30th and 31st May 2022

ICMR – NIIRNCD,

Jodhpur, Rajasthan

Introduction – Premise and Objectives of the Summit:

The burden of non-communicable diseases (NCDs), not only in terms of their epidemiological magnitude but also with respect to the socioeconomic implications of these on multiple levels right from the individual to the society, is a matter of great concern globally and for India. In spite of evidence-based treatment being made available for most of the NCDs, inadequate utilization of these modalities, continue to keep the burden of diseases in India on the higher side when compared to developed countries.

This implies the need for addressing the challenges that hinder accessibility, acceptability, affordability, and appropriateness of health care services for NCDs. This is the basic ambit of implementation research (IR), which is meant to be contextualized in the local settings, as opposed to other types of research which tend to focus more on generalizable findings. Thus, moving away from a one-shoe-fits-all approach, IR needs to be carried out in a manner relevant and cognizant of the context in which a certain intervention or program is implemented, and requires the creation of an enabling environment for such research.

Creating such an atmosphere implies the need to generate awareness about IR, the need for carrying out this sort of research, having skills and knowledge to conduct IR, and ensuring availability of financial and logistic support from the highest echelons of the government to facilitate such research. Being a relatively newer paradigm of research, there is a need for consolidation of skills and competencies in carrying it out, which is compounded by a lack of general awareness about how IR can help enhance the technical and allocative effectiveness of interventions/programs in order to reduce the burden of NCDs. Furthermore, in spite of the NPCDCS program having been rolled out half a decade ago across the country, the fact that we need to strengthen the NPCDCS program in various aspects is one that cannot be ignored.

It is with this backdrop that ICMR-NIIRNCD decided to organize the **Implementation Research India Summit 2022 (IRIS-2022)** on **30th and 31st May 2022** in Jodhpur. Apart from the overarching objective **to appraise the stakeholders at the policy-making and planning level as well as at the level of execution of the plans in states and subject experts and start a dialogue among them, it also intended to forge partnerships with state governments and autonomous organizations to foster implementation research in India.** In addition, this summit also aimed **to pave way for establishing a centre of excellence on communicable and non-communicable disease interface to encourage young researchers to showcase their work in IR.**

Proceedings of the Summit

Opening session and Launch of the WHO-APW Report

The summit started off with a warm welcome address to all the delegates by **Dr Arun Kr. Sharma**, wherein he included various pointers toward the need for IR in the country, its importance in the realm of health policy research, and an overview as to how we may achieve the optimal use of IR in the country. Expressing the aforementioned objectives of the summit in detail, Dr Sharma moved on to welcome the delegates, both on and off the dais, and subsequently invited **Dr Balram Bhargava**, Secretary, DHR & DG-ICMR to deliver a keynote address online.

Starting off with his insights as to how NCDs significantly contribute to the disease burden in India and the World, Dr Bhargava also mentioned the fact that India is passing through an epidemiological transition with an exponential rise in NCDs. He mentioned how IR intends to bridge the gap between research and the health care delivery systems, and that it was with a view to promoting the implementation of research paradigm in the country, ICMR-NIIRNCD had conceived this summit. He stressed the point that the key objective driving this initiative is to bring together public health professionals, academicians, and researchers to deliberate on various aspects of implementation research, and how we can consolidate efforts in our country to bridge the “Research-Practice Gap”. He also underlined the NIIRNCD-WHO India Country Office collaboration in bringing out a detailed report consisting of three systematic reviews of Implementation Research on Cardiovascular Diseases, Diabetes, and Mental Health Ailments, with the intention to map the extant evidence pertaining to IR on NCDs in the country. He ended his address by expressing the possibility that this document would be a prelude as to how the country should strategize efforts on specific components of IR in India, eventually resulting in policy change that is informed by research having real-world applicability.

This was followed by the screening of a pre-recorded video message from **Dr Roderico H. Ofri**, WHO Representative to India, wherein he mentioned that NCDs contribute to quite a sizeable share of morbidity and mortality across the world and that it was important that research tries to address the barriers in the implementation of the programs that are intended to address these diseases. He also expressed that the discussions and deliberations that ensue as a result of this summit may be integral to addressing the gaps in knowledge and practice, through meaningful research. He went on to mention how WHO member states have identified the need for such research and how it has been mentioned in various WHO resolutions from time to time. Having mentioned the collaborative systematic review mentioned earlier, which was to be unveiled shortly, he expressed how research experts, health system functionaries and policy entrepreneurs present in the summit should deliberate in this summit to arrive at relevant IR questions, that may be taken forward. He concluded his message with the pledge from WHO to engage in collaborative efforts with ICMR to promote and

facilitate along with the state health system professionals, with a view to bring out tangible scientific outputs to improve implementation of health programs in the country.

Following this address, the report titled ***“Implementation Research on Cardiovascular Diseases, Diabetes Mellitus and Mental Health in India – A systematic review”*** was unveiled by **Dr. Samiran Panda** (Additional DG, ICMR), **Dr. Sanjeev Misra** (Director & CEO, AIIMS Jodhpur), **Dr DCS Reddy** (Ex-NPO, WHO), **Dr. Sudarshan Mandal** (DDG, Dte.GHS), **Dr. RS Dhaliwal** (NCD Division Head, ICMR), **Dr. Mukesh Kumar** (International Health Division Head, ICMR), & **Dr. Arun Kr. Sharma** (Director, ICMR NIIRNCD).

This session concluded with a summary of the unveiled report by Dr. Hisham Moosan, Scientist E, ICMR NIIRNCD. Presenting the report on behalf of the institute, Dr Moosan conveyed to the delegates that there was a clear dearth of IR in the domains of Cardiovascular Diseases, Diabetes Mellitus and Mental health and there was a tangible lacuna of IR evidence within various subdomains like fidelity, sustainability & feasibility. Expressing that IR components need to be incorporated into the national health programmes, the presentation concluded with emphasis on the need for sensitising the stakeholders to IR and advocating for use of IR in guiding the health policy and programs.

Summit Session - I

Implementation Research to accelerate and support NPCDCS in the country

The National Program for prevention and control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) is a Government of India initiative that was rolled out in 2010 in a phased manner across the country, aimed to combat these diseases. Being implemented now in all the states of the country, it seemed prudent to understand how the program has fared in the various states, what hurdles are faced in the implementation of the preventive, promotive and curative aspects of the program and what lessons could be learnt from the experiences of the functionaries in the states who actually deal with the grass-root level implementation of the NPCDCS. With this objective in mind, this session included short talks from experts from the WHO, Directorate General Health Services, Government of India and Nodal officers of NPCDCS of a few selected state governments in the country. The session was chaired by **Dr. R.S. Dhaliwal**, Head, Division of NCD, ICMR, HQs, and **Dr. Arun Kr. Sharma**, Director, ICMR-NIIRNCD Jodhpur.

The session started off with a video recorded talk by **Dr. Cherian Varghese**, Regional Advisor, NCD, WHO South-East Asia Regional Office on the “Role of Implementation Research in improving control of Non-Communicable Diseases: Global experiences”. At the outset, he highlighted the importance of holding the summit, stating that IRIS-2022 would work as a bridge to bring together research scientists, clinicians, programme managers, and implementers under one roof to discuss the status of NPCDCS, challenges faced in its implementation, and to share success stories to better shape implementation research in this arena. Reminiscing that WHO recently supported systematic reviews on IR in CVDs, Diabetes, and mental health at this institute, he further promised that WHO will support IR at the institution in times to come. In his discourse, he simplified the definition of IR, and stressed how it attempts to cover the **Know – to – Do** gap in disease prevention and control. He emphasized these points by citing a few examples. Alcohol products are heavily priced, and with higher taxation and warning signs over these, however, the consumption of alcohol is escalating across the globe. Secondly, cervical cancer screening has been shown to be an effective intervention but the implementation is not satisfactory. He suggested that these are examples of potential implementation research opportunities and it is important that we remain cognizant of the relevance of IR in such scenarios.

Dr. Sudarsan Mandal, Deputy Director-General, Dte.GHS, and Programme Manager, NPCDCS, Government of India delivered a talk on “NPCDCS – Current status, Challenges and potential role of Implementation Research”. The programme was initiated to cover four diseases viz. cardiovascular

diseases, diabetes, cancers, and stroke. Later it included three more diseases since 2019 viz. COPD, CKD, and Non-Alcoholic fatty liver diseases. He emphasized that NCDs account for 63% of all deaths so these should be addressed on priority. He presented on the status of screening done in the country and newer initiatives taken by the ministry. He drew attention on challenges of the programme which included lack of designated human resource, need of continuous care for each new diagnosed case of NCD because most NCDs are life long, lack of robust monitoring and supervision, low budget allocation and low utilization of allocated budget, and lack of IR in country.

Dr. L. Jampa, State Nodal Officer, NPCDCS, Arunachal Pradesh started off his presentation with a brief status report of the programme in the state. Highlighting the fact that there has been an exceptional growth in the number of beneficiaries utilizing the program, he also stated that the state faced a major challenge in trying to address the disparity between the number of patients diagnosed and treated adequately. Arunachal Pradesh also seems to be unique in the fact that the state has the highest reported cases of stomach cancers in both genders. After having given a brief overview of the research collaboration in the ICMR-INDIAB study, Dr Jampa elaborated on the various challenges the state faced with respect to the implementation of NPCDCS, like difficulties in conducting cervical cancer screening at a sub-centre level, to encourage physical activity in schools, and initiation of more avenues for physical activity, in terms of open gyms etc., for the public.

Dr. Gopal Chauhan, State Nodal Officer of NPCDCS of Himachal Pradesh presented on status and achievements of the program in the state. He also stressed that the state had achieved higher coverage than the targets allocated to it. In addition to the shift from opportunistic screening to population-based screening in 2016 and the program focussing on the 30+ age group, the state has covered the 18-to-30-year age group as well and the screening included NCDs over and above those recommended under NPCDCS program. He expressed concerns about surveillance data entry through separate channels for the same information, which is both cumbersome and an avoidable duplication of work. Contrasting the NPCDCS with the state-run Nirog Yojna, he emphasised on various aspects of implementation, disease coverage and reporting mechanisms of the latter which were apparently better. With regard to the challenges that Himachal Pradesh was facing in terms of NCD control, he brought to light various concerns like the need to strengthen supply and procurement logistics, to set realistic targets to measure the effectiveness of the program, to integrate care for all NCDs under one umbrella and to promote & disseminate state-specific innovations.

Dr. Bipin K. Gopal, state nodal officer for NPCDCS in Kerala started off his presentation with a brief overview of the program and how being in the midst of the epidemiological transition, rampant urbanization, and changing lifestyles have influenced the disease burden in the state. After showcasing various activities done under NPCDCS in the state, he also explained the “Nayanamritham” project, through which Kerala was the first state in the country to implement diabetic retinopathy screening. He subsequently summarised various other state-specific initiatives

such as the SWAAS program, aimed at Chronic Respiratory Diseases, and specific target group interventions like the SHAPE initiative aimed at systematically assessing the health of the Police force. He also elaborated on various challenges faced in the implementation of the NPCDCS such as ensuring compliance to treatment protocols by physicians, addressing factors that influence default in treatment among patients, management of multi-morbidity etc.

Dr. Adithyan GS, representing the state of Tamil Nadu, gave a summary account of how the program and NCD control evolved in the state and explained how the state is implementing population-based NCDs screening through women health volunteers (WHVs), as the state does not have ASHAs. Highlighting the program titled “Makkalai Thedi Maruthvam (MTM)”, he elaborated on how it basically consisted of a strategy to initiate home-based health care services, and he explained the context, achievements and challenges faced in the execution of the same. Akin to the earlier speakers, he ended his discourse by sharing key areas where IR could be a potential tool to improve NPCDCS in Tamilnadu, with suggestions like evaluating the MTM program & the feasibility of HPV DNA testing over Visual Inspection techniques in Cervical cancer screening.

Dr. Navneet Singh, representing Punjab, gave an overview of the NPCDCS program in the state and shared a crisp summary of the activities done in the state NCD program. Like the other speakers, he also mentioned the India Hypertension Control Initiative (IHCI) and its activities in the state. He also elaborated on certain innovative strategies, like the hub-and-spoke model for the care of STEMI patients, which was currently being piloted in the state. Among the challenges faced by Punjab, he stressed on the lack of staff specifically assigned for NCD-related work. and non-availability of computers at peripheral health institutions.

Dr. R.N. Meena, Joint Director of NPCDCS, Medical & Health Department, Government of Rajasthan informed that the state is the first in the country to provide all diagnostic and treatment services free of cost to the residents. After elaborately discussing the current status of NPCDCS in the state and outlining various targets achieved, he raised certain key issues that were barriers to the effective implementation of the program in Punjab. These included issues related to data entry, and lack of awareness of NCDs among the population, to name a few. Increased focus on RCH activities, inadequate funds and human resources were among the other major constraints the state has to face.

Dr. Santosh Kumar, Associate Professor, AIIMS, Rishikesh, Uttarakhand gave a short overview of the NPCDCS workflow and functioning in the state, after which he mentioned the challenges faced in Uttarakhand. These included issues posed by difficult terrain and climate conditions, the inadequacy of health care personnel (esp. in hilly regions) and the need for political and administrative commitment towards the control of NCDs. He also narrated about the “Workplace wellness programme”, which was an initiative by his institution aimed at the prevention and control of NCDs among peers of workplaces.

Dr. Sushma Choudhary, Program Advisor, SAFETYNET, NCDC, Delhi presented a review report of NPCDCS in the country. In the report, developing a standardized protocol of reporting, supervision & monitoring was emphasised and the need for human resource recruitment was underlined. Other recommendations included decentralization of follow-up services and improvement in a health information system.

Summit Session - II

Context and Relevance of Implementation Research in

Non-Communicable Diseases:

This session was conceived with the notion that a more in-depth exploration of the various organ system-specific contexts of IR will guide the participants in framing and asking the right research questions for undertaking IR. Accommodating the availability of speakers for this session, it was split into two over the 30th and the 31st of May. Being cognizant of the vastness of such an angle of inquiry, it was decided to focus only on a select few specialities, viz., Psychiatry, Pulmonology, Cardiology, Nephrology, Cancer and Geriatrics.

Mental Ailments:

Speaker: Dr. Pallab K Maulik, Deputy Director and Director of Research, George Institute for Global Health

Chair: Dr. Vivek Benegal, NIMHANS & Dr. Amit Chakrabarti, I-CAM

Dr. Maulik, gave some insights about implementation research (IR) characteristics, theoretical frameworks, strategies, and how to measure outcomes. He highlighted some of the IR studies done in mental health and emphasized the need for evidence-based treatment. He also pointed out why there is a dire need for IR in mental health. He referred that globally 9% of all DALYs losses are related to behaviour disorders, and self-harm is one leading cause of death in India as per GBD2013. He briefly broached the SMART mental health project as a case study, conducted in a rural setting by involving mental health professionals to bridge the treatment gap using mobile-based technology. He showed that mental health services using technology is feasible and mentioned the role of telehealth consultation, mental health awareness, and anti-stigma campaigns in the SMART study.

Chronic Respiratory Diseases:

Speaker: Dr. Richa Gupta, Professor and Head of Department of Respiratory Medicine, Christian Medical College Vellore

Chair: Dr. Santasabuj Das, NIOH & Dr. Sanjeev Nair, GMC, Trivandrum

Dr. Gupta gave a general overview of chronic respiratory diseases with special emphasis on Asthma and COPD. She elaborated on potential barriers in the implementation of evidence-based strategies, such as insufficient knowledge, lack of consensus, cultural and economic barriers, and lack of resources. She pointed out the impact of early quitting of smoking on lung health. She suggested that an adult vaccination program may be a preventive strategy in the elderly suffering from COPD and asthma. She also suggested using portable spirometry for the early diagnosis of respiratory illness in primary care settings. She proposed some IR strategies related to treatment like the use of generic

inhaled drugs, education programs, and pulmonary rehabilitation (PR). She shared her experiences based on two intervention studies, one on health care worker delivered education, screening, referral & follow-up study, and another one on the feasibility of PR in the community. She pointed out that participants were slow in the beginning but later adopted the program easily. The presentation was concluded by the suggestion of the need for focused policy intervention, international collaboration, and steps to reduce the increased disease burden.

Cardiovascular diseases & Stroke:

Speaker: Dr. Roopali Khanna, Additional professor of the Department of Cardiology, SGPGIMS, Lucknow

Chair: Dr. Mukesh Kumar, IHD, ICMR & Dr. Surender Deora, AIIMS Jodhpur

Dr. Khanna started off her session by emphasizing the importance of evidence-based intervention to reduce the CVD burden. She suggested that reversible population risk factors, early acute care interventions and secondary prevention measures will be of significance in reducing the burden. She addressed the trends of the risk factors and early care issues like STEMI care, lack of awareness, paucity of resources & golden hour. She also addressed the issues like medicine, and continuous care pertaining to secondary prevention measures. While addressing the above issues, she pointed out the potential role of IR in the control of CVDs by achieving some IR outcomes in the CVDs area. Dr. Khanna then highlighted the role of the NPCDCS program in dealing with CVDs & strokes. She mentioned key references to highlight sub-domains like the drug inventory-related gap and treatment-related issues pertaining to doctors. At the end of the session, she suggested a few possible solutions to reduce the burden and improve the quality of life of the patients like strengthening the infrastructure, improving the availability of drugs/labs, and widening the use of digital technology.

Chronic Kidney Diseases:

Speaker: Dr. Vivekanand Jha, Executive Director, The George Institute for Global Health, India, Chair of Global Kidney Health, Faculty of Medicine, Imperial College of London

Chair: Dr. Arghya Mazumdar, AMRI Hospitals & Dr. Suresh Yadav, ICMR-NIIRNCD, Jodhpur

Starting off the latter segment of this session on the 2nd day, Dr. Jha, with regard to the IR in chronic kidney disease (CKD), pointed to the Global CKD burden, improvement in CKD mortality, and rise in the trend of RRT (renal replacement therapy). He also stressed that CKD is the 3rd fastest-growing cause of worldwide death, and is poised to become the 5th leading cause of death by 2040. He questioned the uptake of traditional research outcomes and notified some of the reasons like disruption with current approaches, slow and non-responsive research, and research not pertaining to policy aspects. Dr. Jha suggested that the "Multi-method inquiry" used to find ways in which evidence-based interventions can be incorporated into services for broad-scale delivery under routine conditions and also described a brief overview of IR & scaleup models. He suggested some

potential areas amenable to IR questions like poor adherence to lifestyle modification, the benefit of peritoneal dialysis, and a bundle of care to reduce rates of infection in the haemodialysis program. Akin to Dr Maulik, he also presented a case study sort of summary of the SMARTHealth India initiative: A village-based healthcare “ecosystem” using digital health technologies by community health workers, which showed that the community health worker was better at the identification of high-risk individuals compared to physicians in certain contexts. At the end of the session, he suggested a sustainable kidney care model for the 21st century.

Cancer:

Presenter: Dr. Jeewan Ram Vishnoi, Associate Professor, Department of Surgical Oncology, All India Institute of Medical Sciences, Jodhpur

Chair: Dr. Sanjeev Misra, AIIMS, Jodhpur & Dr. Sudarsan Mandal, DDG, Dte. GHS

Dr. Jeewan Ram Vishnoi, presented the scope of IR in cancer. In his presentation, first he acknowledged the ICMR for developing the cancer-based registry. Dr. Vishnoi briefly described the burden of cancer in India, challenges, and increasing/changing trends. Initially, he broached on certain basic principles and terminologies pertaining to the realm of IR. He also pointed out the large time gap between the conduct and uptake of original research findings and the research-action gap in the implementation of current screening guidelines. He also mentioned why IR is needed in cancer control and prevention and how it could play a crucial role in NPCDCS.

Geriatric Care:

Presenter: Dr. Ashish Goel, Professor, and Head, Dept of Medicine, AIMS, Mohali

Chair: Dr. Arvind Mathur, Ex-Principal, SNMC & Dr. M.B. Singh, ICMR-NIIRNCD, Jodhpur

Dr. Ashish Goel gave an overview of key areas in geriatric health that needed focus, the scope of IR in Geriatric healthcare, the role of the research community in IR, and expectations from researchers. He described why geriatric healthcare is different and also pointed out the scenario from public health & individual perspective. He emphasized the dissemination of the completed research work and the formation of a central body for guidelines. Finally, he concluded by highlighting the focus areas and use of ageism-free & DAD (Design, Analysis/Application, and Dissemination) approach.

Summit Session 3

Communicable and Non-Communicable diseases - A seamless spectrum

Evident from the narratives of various speakers in the previous sessions, and from literature coming in from many countries across the world, it seems that the epidemiological transition between these two broad types of ailments does not render them clearly demarcated compartments, but that they rather have an interface between them as well. It was with the intention of exploring this spectrum, as well as deliberating on the possibilities of deploying IR to address specific issues pertaining to this interface that this session was envisaged. Being the last, but most certainly not the least important session of the summit, it was chaired jointly by Dr. Mukesh Kumar, Head, IHD, ICMR, and Dr. Arun Kumar Sharma, Director, NIIRNCD, Jodhpur. Seven eminent speakers presented their views on the above topic.

Dr. Samiran Panda, Additional Director General, ICMR, raised the curtain on this session by sharing his view that it was imperative to address the question about the need for the CD-NCD interface. He talked about the dynamics of the CD-NCD interface and explained the multi-morbidity co-existing in any program and the SIR (susceptible, infected, recovered) model. He spoke about the causation of chronic diseases (health risk behaviour) and elaborated on factors like smoking, physical inactivity, excess alcohol use, unbalanced nutrition and interaction of agents. He also emphasized the environment and causation of NCDs. He also spoke about the co-occurrence of HIV/substance use and violence. He proposed that from a different standpoint, NCDs could be considered communicable as well, but not in the conventional sense. He also focused on the co-occurrence of DM, poverty and depression.

Dr. Priya Abraham, Director, NIV, Pune spoke about the CD-NCD interface from a virologist's perspective. She talked about the association of the human papilloma virus with cervical cancer. She further said that India accounted for one-third of the global cervical cancer deaths. She also explained that persistent infection with oncogenic HPV led to cervical cancer. Therefore, vaccination is to be administered to adolescent girls.

She said that indigenous point of care (PoC) tests are under trial and will replace the existing expensive diagnostic tests. HPV is detectable in 95% of cervical cancers. She gave importance to vaccination, screening, and treatment for cervical cancer. Hepatitis B virus (HBV), and hepatitis C virus (HCV) are associated with and causative of chronic liver disease and liver cancer. She further elaborated that the WHO has set the ambitious goal of eliminating viral hepatitis as a public health problem by 2030. She also emphasized the association of congenital anomaly with viral infections and chronic fatigue syndrome

Dr. D.C.S. Reddy, former Prof and Head, Dept of Community Medicine, Banaras, Hindu University, spoke on potential challenges in CD-NCD interface and common risk factors that perpetuate the interactions between them. He gave special importance to the migrant population for its vulnerability to both CDs & NCDs. He said that the population of urban, poor and slum dwellers are also at risk for a similar spectrum of diseases. According to him, the challenges for the programme implementation included reluctance towards experimentation, inability to influence policy, absence of data sharing, and above all the volume and quality of available data.

Dr. Sanjeev Nair, Associate professor at the Department of Pulmonary Medicine, Medical College, Thrissur talked about exploring avenues of research to address the CD-NCD interface. Initially, he deliberated on the various intricacies and differences between the CD and NCD using Global mortality figures, citing the GBD 2019 reports. Drawing examples from his state, he spoke on diabetes being more important than HIV in Kerala as a risk factor for TB, and also TB has been identified as a risk factor for COPD. The pooled prevalence of COPD in patients with prior pulmonary TB was 21%, citing which he advocated ensuring follow-up of cured TB patients and providing long-term care. He also talked about NCDs predisposing to infection like diabetes to bacterial infections/ sepsis, COPD to pneumonia, Substance abuse – to infection, etc. He described the SWAAS program and the potential use of SWAAS clinics for the diagnosis of other NCDs like cancer.

Dr. Rajib Dasgupta, Professor, JNU, New Delhi spoke on public health challenges in the CD/NCD continuum. He attempted to explain the false dichotomy of the CD-NCD interface, citing the example that 10% of human cancers can be attributed to viral infection. NCD policies fail to address carcinogenic bacteria (*H. Pylori*), helminths, and other parasites, and also cardiovascular diseases have infectious risk factors like rheumatic fever (*streptococci* infection) etc. He also focused on complex interactions between established CD and emerging NCDs like tuberculosis and Type 2 diabetes mellitus. tuberculosis and COPD, He spoke about the implications of multi-morbidity for the health system in an era of health transition. The CD/NCD distinction is intrinsically linked to different forms of bio sociality and ideas about causation and lifestyle and he also said that the epidemic potential of macro parasites is better understood in terms of their biosocial dynamics, in political economy and human biology. He also spoke briefly on the innovative care for chronic conditions model and how similar theoretical frameworks may be useful in better understanding the dynamics of the interactions between these diseases.

Dr. Tarun Bhatnagar, a Scientist F from the ICMR-National Institute of Epidemiology, Chennai delivered a talk on how the Covid-19 pandemic influenced non-communicable diseases. He expressed that NCDs were responsible for >70% of deaths worldwide. He explained COVID-19 along with NCD risk factors, and people having NCDs are vulnerable to becoming severely ill or dying from Covid-19 and/or acquiring multi-organ complications of Covid-19. He also broached upon the

“syndemic” perspective on NCDs amid pandemics like Covid-19 and inequitable health consequences of Covid -19. He also elaborated on the health, psychosocial, and economic impacts of Covid-19 on people with chronic conditions in India and concluded his oration by emphasizing the disruption of NCD services during the Covid-19 pandemic.

Early Career Implementation Research Conclave

While deliberating about the content of this summit, an idea came up to have a session that would be directed towards young researchers in the country to showcase their work in IR. It was with this conviction that abstracts were called for to this effect. Unfortunately, out of the 42 abstracts received, only four were selected to be pertaining to the domain of implementation research. Even though this could be a surrogate indicator for the dearth of IR done within the country, we are optimistic that the work of these young researchers will be motivation for others to follow suit, and hence, a free paper session- “Early Career Implementation Researchers Conclave” was organized. Dr. Pankaj Bhardwaj, Additional Professor & Vice-Dean (Academic Research) and Dr. Ramesh Sangwan, Scientist-B, ICMR-NIIRNCD were the chairpersons of the session.

The first speaker, **Dr. Pallavi R. Shidaye**, Scientist C from National AIDS Research Institute (NARI), Pune diligently discussed her studies on implementing MOH&FW-COVID-19 related guidelines at antiretroviral therapy centres (ART) during the pandemic. She emphasized that adaptation of changes by the health system could only be achieved by conducting research, which would bring out solutions for the implementation of quick and pragmatic changes.

The next speaker was **Dr. Shambu Ramesh**, Scientist B from the Institute of Health Technology, Vizag. Dr. Shambu discussed how vulnerability mapping among community-based palliative care patients can help in active case finding of pulmonary tuberculosis. He claimed that this model accelerated TB elimination in Kerala.

Dr. Ramesh Sangwan invited the third speaker of the session – **Dr. Kalyani Nikhare**, Research fellow, Public Health Foundation, India. Dr. Nikhare discussed the importance of organizational readiness in the successful implementation of evidence-based clinical interventions in health care settings. She elaborated the protocol of their intended study and also gave great insights into various instruments used to assess organizational readiness.

Dr Pankaj Bhardwaj invited the last speaker of the session - **Dr. Rakhi Dwivedi** from All India Institute of Medical Sciences, Jodhpur. Dr. Dwivedi shared her work on mapping of traditional healers and documentation of the traditional medicinal practices followed by them. As discussed, the mapping of tribal healers through a two-level (high & ground) approach may improve coverage, and fidelity & reduce implementation costs.

Appendix – I: Program Schedule



Implementation Research – India Summit

IRIS - 2022

Program Schedule

Day One – 30th May 2022

Time	Topic	
09:00 AM to 09:30 AM	Registration	
Time	Topic	Speaker
09:30 AM to 09:40 AM	Welcome Address	Dr. Arun Kr. Sharma, Director, ICMR-NIIRNCD, Jodhpur & Director-in-Charge, I-CAM, Kolkata
09:40 AM to 09:50 AM	Keynote Address Implementation Research in India Opportunities and the Way Forward	Prof. Balram Bhargava, Secretary, Department of Health Research & Director-General, ICMR (Online)
9:50 AM to 9:55 AM	Message from WHO Country Office	Dr. Roderico H Ofrin, WR India
09:55 AM to 10:00 AM	Release of the Report on “Implementation Research on CVDs, Diabetes Mellitus and Mental Health in India– A Systematic Review”	Prof. Balram Bhargava Dr. Samiran Panda, Addl. DG-ICMR Dr. Sanjeev Misra, Director, AIIMS-Jodhpur Dr. D.C.S. Reddy, Ex-NPO, WHO Dr. R.S. Dhaliwal, Head, Division of NCD, ICMR Dr. Sudarsan Mandal, DDG, DHS Dr. Mukesh Kumar, Head, Division of IHD, ICMR Dr. Arun Kr. Sharma
10:00 AM to 10:15 AM	Report Presentation	Dr. Hisham Moosan, Scientist-E, ICMR-NIIRNCD Jodhpur
10:15 AM to 10:35 AM	Tea Break	

Summit Session 01 –Implementation Research to Accelerate and Support NPCDCS in the Country			
Time	Topic	Speaker	Chairperson
10:40 AM to 10:55 AM	Role of Implementation Research in Improving Control of Non-Communicable Diseases: Global Experiences	Dr. Cherian Varghese, Regional Advisor, NCD WHO South-East Asia Regional Office (Recorded Video)	Dr. R.S. Dhaliwal & Dr. Arun Kr. Sharma
10:55 AM to 11:25 AM	NPCDCS - Current Status, Challenges and Potential Role of Implementation Research	Dr. Sudarsan Mandal, Deputy Director General, Dte. GHS and Program Manager, NPCDCS	
11:25 AM to 11:40 AM	Arunachal Pradesh	Dr. L. Jampa	
11:40 AM to 11:55 AM	Himachal Pradesh	Dr. Gopal Chauhan	
11:55 AM to 12:10 PM	Kerala	Dr. Bipin K. Gopal	
12:10 PM to 12:25 PM	Punjab	Dr. Navneet Singh	
12:25 PM to 12:40 PM	Rajasthan	Dr. R. N. Meena	
12:40 PM to 12:55 PM	Tamil Nadu	Dr. Adithyan GS	
12:55 PM to 01:10 PM	Uttarakhand	Dr. Santosh Kumar	
01:10 PM to 01:25 PM	NCDC, Delhi	Dr. Sushma Chaudhary	
01:25 PM to 01:40 PM	Discussion and Summary		
01:40 PM to 02:30 PM	Lunch		

Summit Session 02(A) – Context and Relevance of Implementation Research in Non-Communicable Diseases			
Time	Topic	Speaker	Chairpersons
02:30 PM to 02:50 PM	Mental Illnesses	Dr. Pallab Maulik	Dr. Vivek Benegal, NIMHANS & Dr. Amit Chakrabarti, I-CAM
02:50 PM to 03:10 PM	Chronic Respiratory Diseases	Dr. Richa Gupta	Dr. Santasabuj Das, NIOH & Dr. Sanjeev Nair, GMC, Trivandrum
03:10 PM to 03:30 PM	CVDs & Stroke	Dr. Roopali Khanna	Dr. Mukesh Kumar, IHD, ICMR & Dr. Surender Deora, AIIMS Jodhpur
03:30 PM to 03:45 PM	Q&A session		
03:45 PM to 04:00 PM	Tea Break		
Early Career Implementation Researchers' Conclave			
Time	Presentation	Speaker	Chairpersons
04:00 PM to 04:10 PM	Implementing Government Guidelines at Antiretroviral Therapy Centre During COVID-19 pandemic: Pune experience	Dr. Pallavi R. Shidhaye	Dr. Pankaj Bhardwaj, AIIMS, Jodhpur & Dr. Ramesh Kr. Sangwan, ICMR-NIIRNCD, Jodhpur
04:10 PM to 04:20 PM	Accelerating Tuberculosis Elimination in Kerala by Developing a Routine Active Case Finding Practice Among Community Based Palliative Care Patients	Dr. Sambhu Ramesh	
04:20 PM to 04:30 PM	An Exploratory Study to Determine the Usability of Organizational Readiness Instruments in Primary Health Care Setting in India.	Dr. Kalyani Nikhare	
04:30 PM to 04:40 PM	Summary and Conclusion by the Chairpersons		

Day Two – 31st May 2022

Inauguration of Geographic Information System (GIS) Laboratory			
Time	Topic	Speaker	
09:00 AM to 09:15 AM	Group Photograph		
09:15 AM to 09:30 AM	Inauguration of GIS lab	Dr. Samiran Panda, Addl. DG-ICMR	
Summit Session 02(B) – Context and Relevance of Implementation Research in Non-Communicable Diseases			
Time	Topic	Speaker	Chairpersons
09:30 AM to 09:50 AM	Chronic Kidney Diseases	Dr. Vivekanand Jha	Dr. Arghya Mazumdar, AMRI Hospitals & Dr. Suresh Yadav, ICMR-NIIRNCD, Jodhpur
09:50 AM to 10:10 AM	Cancer	Dr. Puneet Pareek	Dr. Sanjeev Misra, AIIMS, Jodhpur & Dr. Sudarsan Mandal, DDG, Dte GHS
10:10 AM to 10:30 AM	Geriatric Care	Dr. Ashish Goel	Dr. Arvind Mathur, Ex-Principal, SNMC & Dr. M.B. Singh, ICMR-NIIRNCD, Jodhpur
10:30 AM to 10:45 AM	Discussion		
10:45 AM to 11:05 AM	Tea Break		
Summit Session 03 – Communicable Disease & Non-Communicable disease -A Seamless Spectrum			
Time	Topic	Speaker	Chairpersons
Introduction of Experts			
11:05 AM to 11:15 AM	The Need to Address the CD-NCD Interface	Dr. Samiran Panda	Dr. Arun Kr. Sharma, & Dr. Mukesh Kumar IHD, ICMR
11:15 AM to 11:25 AM	Need for CD/NCD interface: A Virologist's perspective	Dr. Priya Abraham	
11:25 AM to 11:35 AM	Potential Challenges in CD-NCD Interface Research	Dr. D.C.S. Reddy	
11:35 AM to 11:45 AM	Exploring Avenues of Research to Address the CD-NCD Interface	Dr. Sanjeev Nair	
11:45 AM to 11:55 PM	Public Health Challenges in the CD NCD Spectrum	Dr. Rajib Dasgupta	
11:55 AM to 12:05 PM	COVID-19 and Non-Communicable Diseases	Dr. Tarun Bhatnagar	
12:05 PM to 12:15 PM	Open House		
12:15 PM to 12:25 PM	Feedback and Conclusion of the Summit - Director, ICMR-NIIRNCD, Jodhpur		
12:25 PM to 12:30 PM	Vote of Thanks- Dr. Ramesh Kr. Huda		
12:30 PM	Lunch		

Appendix II

Selected Snapshots of IRIS 2022

Opening Session



Opening Session (cont.)

Messages from Prof. Balram Bhargava (Secretary, DHR and DG, ICMR), Dr. Roderico H Offrin (WHO Representative to India)
& Dr. Cherian Varghese (Regional Advisor, NCD, WHO SEARO)



Summit Session – I



Summit Session – II A



Summit Session – II B



Summit Session – III



Early Career Researchers' Conclave

