PRESENTED AT THE
PHFI BOARD MEETING
ON OCTOBER 30-31, 2018
Public Health Foundation of India

The PHFI's logo is an engaging representation symbolic of good health, happiness, positive energy, renewal and collaborative change. The sunflower symbolises Public Health, and its petals represent flowering of its multiple disciplines and coming together of all stakeholders to fulfill the common goal of working towards a healthier India. The spiral in the logo depicts the bud of knowledge blossoming into the flower of action. Vibrant orange is the colour of vitality, white symbolises truth and green symbolises the harmonious relation to the environment.
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Chairman’s Message

Nation building involves dedicated efforts by many organisations and individuals who continually strive to better the country’s performance in every field of development. While each contribution in the many diverse areas of human welfare and societal advancement is of great value, efforts to protect, preserve and promote the health of our citizens is of utmost importance. This is not only because health is the best summative indicator of development in several sectors but also because health is a vital ingredient for achieving success in all other areas of human development and is pivotal for sustained economic growth.

For that reason, I have gladly taken up the role of guiding the Public Health Foundation of India (PHFI) as its Chairman since July 2018. It was actually in 2016, that I came to appreciate and admire the intellectual rigour, careful planning and meticulous execution that researchers from PHFI brought to the design and implementation of the projects of the Centre for Environmental Health (CEH). I was also aware of the wide array of educational, training, research and health system strengthening activities that PHFI was undertaking across the country. Since I assumed the position of Chairman, I am gaining a greater understanding of the scope and impact of these initiatives.

During the past eighteen months, PHFI has faced severe challenges. It is a tribute to the core strength and resilience of the organisation that it has withstood the unexpected adversity and emerged wiser and stronger from the experience. The achievements of PHFI, during this turbulent phase, are highly creditable as detailed in this report. I would like to acknowledge the visionary leadership of Prof Srinath Reddy and the support extended by PHFI’s board, led by my distinguished predecessor Shri N.R. Narayana Murthy.

It will be my earnest endeavour to provide the guidance and support needed to ensure PHFI is recognized as an Institute par excellence that creates a positive impact in our society. I am fortunate to have the support of a very distinguished General Body and a highly energetic Executive Committee (board) in this undertaking. I seek the support of all partners and stakeholders, especially the government, in placing the vision of PHFI in India’s development and focus on our mission of nurturing and building a healthy and prosperous nation.

I wish the students, staff, researchers, faculty, senior management, Governing Body and Executive Committee members who constitute the PHFI, the very best of success and fulfilment in all future endeavours. I feel greatly privileged to be a part of this family and look forward to rejoicing in its successes. The unique nature of PHFI will make it an especially enjoyable and enriching experience for me, and I look forward to working with all of you.

S. Ramadorai
From the President’s Pen

“....we could never learn to be brave and patient, if there were only joy in the world”

- Helen Keller

The mettle of any organisation is truly tested when it is subjected to an unexpected stress test. Such an experience also offers a valuable opportunity to assess the strengths and weaknesses that are exposed when the adversity strikes at unguarded moments. To even stand steady against the gale force of harsh winds calls for core strength and to still stride forward calls for determination and grit. We never anticipated that we would be subjected to such a test when 2017 began. This Annual Report records the activities that PHFI undertook and accomplished even as it propelled itself through a prolonged period of turbulence that lasted from April 2017 to January 2018. As we share them with you, we wonder, in poet Virgil's words, "Maybe one day we will be glad to remember even these hardships".

If 2016 was truly a ‘Leap Year’ for PHFI, in terms of growth and performance, the year that followed administered a severe shock that nearly paralysed the organisation. The five-year renewal of permission to receive foreign funds, granted in 2016, was annulled with retrospective effect in 2017 by the administrative order of a government agency, without any notice. The Ministry of Health and Family Welfare (MoHFW) and our board provided support to PHFI, as we responded to the charges against it. Fifty four global public health leaders and several luminaries of the health profession in India wrote to the Honourable Prime Minister, seeking his intervention for providing relief to an organisation that was contributing commendably to public good. Subsequently, a fresh review was undertaken by the governmental agencies.

Early in 2018, partial relief was given, by providing access to foreign funds already received and held, and a prior permission route was prescribed for fresh remittances. Quarterly reviews conducted by a MoHFW committee, in May and September 2018, endorsed the national relevance of the work being done by PHFI, with several state government representatives recording their appreciation of the high quality and value of PHFI's activities undertaken in partnership with them.

The impact of the order preventing receipt of international grants was damaging to PHFI, with competitively won international funding for research and implementation projects suddenly curtailed and staff strength plummeting to a third of the strength that existed at the beginning of 2017. The recovery process has now begun with gradual expansion of research staff. The faculty strength was protected and mostly
preserved during this difficult period, in order to ensure the continuity and quality of the academic programmes. Despite the serious challenges, PHFI Central and the constituent Indian Institutes of Public Health (IIPHs) managed to conduct a wide range of teaching, training, research, health promotion and health system strengthening activities. These are profiled in this annual report.

Even during this period of turbulence, PHFI won national and international recognition for its work. The capacity building programmes for primary care physicians, in chronic diseases, won several prestigious national awards and attracted requests for international partnerships. The states of Uttar Pradesh, Odisha and Karnataka engaged PHFI Central and IIPHs in development of state health policies and other health system strengthening initiatives. MoHFW and NITI Aayog invited PHFI to assist in the creation of state level public health cadres, expansion of postgraduate medical education programmes and training of nurse practitioners for Health and Wellness Centres. PHFI was nominated to expert groups set up by the Finance Commission and the Prime Minister’s Economic Advisory Council to examine key issues related to health financing. An array of innovative and affordable health technologies, developed for enhancing the outreach and effectiveness of primary healthcare services, have been field-tested and attracted a high level of interest from government agencies and industry. Research productivity and quality continued to be at high global standards and the SCIMAGO ratings placed PHFI among the top 700 global universities and research institutions.

A high point of the accolades came when PHFI applied for an Institution of Eminence (IoE) status to its proposed Institute of Public Health Sciences at Hyderabad, under the ‘Greenfield ’ category. This initiative of the Government of India was launched in 2018 to identify existing and proposed institutions which have the potential to attain world class status. Of them, the greenfield institutions were to be selected by reviewing the track record of the sponsor and strength of the proposal. Forty leading academic and research organisations across the world wrote in support of PHFI’s proposal on IPHS, recording high praise for its contributions to public health and offering partnership. The Empowered Expert Committee, apart from selecting six institutions for IoE status, recognised the strategic importance and value of PHFI’s work and recommended a ‘Category 1 like status’ on par with highly accredited universities. If implemented, this recommendation would provide flexibility and funding to the IPHS. This would also benefit all existing IIPHs, which can affiliate.

The Executive Committee and General Body of PHFI provided strong and steady support as well as sagacious guidance throughout the period under review, enabling PHFI to weather the storm and emerge intact for continuing its mission. Mr N.R. Narayana Murthy, who was Chairman of PHFI during this time, was a pillar of strength whose vision and values helped us to find the path to survival and safety. The senior management, staff, faculty, researchers and students, constituting the PHFI family, displayed remarkable fortitude and resilience during this stressful period and ensured that the vital functions of the organisation were well preserved. Several friends of PHFI, within central and state governments, academia, civil society, development partners and the philanthropic community helped to keep our morale high and advocated our cause with policy makers. The PHFI family is greatly beholden to all of them.
In July 2018, Mr S. Ramadorai assumed office as Chairman of PHFI. He has brought to us a wealth of experience in guiding good governance, mission clarity and organisational strengthening as well as an astute understanding of public policy. His leadership has energised PHFI during the recovery phase and augurs well for a swift and sharp ascent to greater heights of accomplishment with assured stability. Several new members have entered the General Body and Executive Committee of PHFI, infusing new vigour in our functioning and fresh ideas into our thinking. We will greatly benefit from their wisdom. Board members who have completed two terms moved from the Executive Committee but will continue to grace the General Body and guide us from there. With such a distinguished and dedicated group of mentors and monitors, PHFI is moving towards 2019 with a spring in its step.

The ‘All Blacks’, New Zealand's world champion Rugby team, has a slogan: “Better Never Stops; Better Every Day”. We, at PHFI, too believe in constantly striving to improve ourselves in all spheres of our work - from imagination to implementation, from envisioning to execution and in advancing knowledge to action, impact and equity. This Annual Report will give us the impetus to do even better in the year ahead.

K. Srinath Reddy
Who are we

VISION

Our vision is to strengthen India’s public health institutional and systems capability and provide knowledge to achieve better health outcomes for all.

MISSION

- Developing the public health workforce and setting standards
- Advancing public health research and technology
- Strengthening knowledge application and evidence informed public health practice and policy

VALUES

Transparency
- Uphold the trust of our multiple stakeholders and supporters
- Honest, open and ethical in all we do, acting always with integrity

Impact
- Link efforts to improving public health outcomes, knowledge to action
- Responsive to existing and emerging public health priorities

Informed
- Knowledge based, evidence driven approach in all we do
- Drawing on diverse and multi disciplinary expertise, open to innovative approach

Excellence
- Aim for highest standards in all aspects of our work
- Promote excellence in public health precept and practice

Independence
- Independent view and voice, based on research integrity & excellence
- Support academic and research freedom, contributing to public health goals and interests

Inclusiveness
- Strive for equitable and sustainable development, working with communities
- Collaborate and partner with other public health organizations
Working towards a healthier India

PHFI is a public private initiative launched in 2006 as a response to emerging public health challenges, with the aim of strengthening public health capacity in the country. PHFI adopts a broad, integrative, multidisciplinary and multi sectoral approach to public health, tailoring its efforts to Indian conditions and engages with the many dimensions of public health that encompass promotive, preventive, therapeutic services and rehabilitation. Our belief is that healthcare in India ought to be addressed not only from the scientific perspective of what works best, but also from the social perspective of who needs it the most.

Structured as an independent Foundation and set up as Society, PHFI is governed by an empowered body comprising senior government officials, eminent Indian and international academic and scientific leaders, civil society representatives and corporate leaders. It is headquartered in New Delhi with presence across India through its constituent units that include Indian Institutes of Public Health and Centres of Excellence.

PHFI has received institution building support from Ministry of Health and Family Welfare, several State Governments, corporate leaders, Indian philanthropists and international foundations including the Bill and Melinda Gates Foundation and the Wellcome Trust.

We work collaboratively with all stakeholders in the health system. We provide technical support and assistance to central and state governments for informing and aiding governmental initiatives. We engage with other partners including the research community, academia, NGOs, civil society, media towards a collective action on health across sectors, and work with international agencies who support broader public health capacity building in India. Our aim is to play an enabling role in the transformation of India’s health scenario.
PHFI is working through education, training, research, policy and advocacy efforts and communication, cutting across major disciplines of public health.

- We currently have a network of five Indian Institutes of Public Health (IIPH) that have been created with the vision of becoming benchmarks in teaching, training, and research in the public health arena. In addition, one ancillary center at Bengaluru conducts academic programmes. Their chief task is to educate and nurture human resources in various public health domains, thus contributing to achieving overall national health goals. PHFI Central coordinates these activities, apart from hosting dedicated research and training teams.

- Across PHFI Central, IIPHs and our four Centers of Excellence (Chronic Diseases, Environmental Health, Social Determinants of Health and Disabilities Inclusive Research), we have 50 highly qualified faculty members and 150 full time researchers. In addition, we have 124 adjunct and visiting faculty drawn from Indian and International institutions of repute.

- Our research projects are interdisciplinary in nature encompassing issues such as women and child health, nutrition, communicable and non-communicable diseases, mental health, disabilities, health systems and governance, and health financing. Our Institutional Ethics Committee provides guidance and promotes ethical conduct in all our research.

- Our training division was established in 2008 with the aim of building capacity in public health researchers and practitioners for bridging the gaps in access and quality of health services to all strata of society. In the year under review, we have trained over 6,000 participants.

- Our Health Systems Support Division, with a focus on implementation and practice, works towards strengthening healthcare related initiatives by leveraging research, education, advocacy, training, and offering the required technical support to build, strengthen, and sustain the public health delivery system. Alliance for Health Policy and Systems Research (WHO) has designated PHFI as one of the six Nodal Centers for Health Policy and Systems Research (HPSR).

- Our Health Promotion and Health Communications divisions develop and implement settings based programmes and also catalyse direct outreach through mass media. They endeavour to raise the technical educational content, profile of communication and advocacy within the realm of public health. Our core competencies include health literacy and communication, education for capacity enhancement, public health advocacy and policy analysis, strategies and action plans for community health promotion.
Governance

PHFI is an autonomously governed public private initiative registered as a Society under the Societies Registration Act 1860. Under the governance structure adopted by the Society, the Foundation is governed by a fully empowered, independent, General Body (comprising of all the members of the Society) that has representatives from multiple constituencies - government, Indian and international academia and scientific community, civil society and private sector. The management of the affairs of the Society is entrusted to the Executive Committee, the governing body of PHFI that is elected by the Members of the Society in accordance with the Rules and Regulations. The Chairperson of the General Body also chairs the Executive Committee. The President of PHFI is appointed by the executive committee and is a nonvoting, ex-officio member of the Executive Committee and the Member Secretary.
Brief Profile of Mr. S. Ramadorai

Mr. S. Ramadorai retired as the Vice - Chairman of Tata Consultancy Services Ltd (TCS), a company he was associated with, for over four decades. He took charge as CEO in 1996 and since then led the company through some of its most exciting phases, including its going public in 2004. In October 2009, he completed his tenure as CEO, leaving a $ 6 billion global IT services company to his successor to lead.

Mr. Ramadorai has been an Advisor to the Prime Minster at the National Skill Development Council, in the rank of Cabinet Minister from 2011-2016. Mr. Ramadorai served as Non-Executive Chairman at BSE Ltd from 2010 till 2016. He serves as Chairman of the Board of CRL Ltd, AirAsia (India) Private Limited, and AirAsia (India) Pvt Ltd. He is an Independent Director on the Boards of Hindustan Unilever Limited, Asian Paints Limited and Piramal Enterprises Limited. Mr. Ramadorai has been the Chairperson of Axis Bank Foundation since January 2010. Given his keen passion to work for the social sector and community initiatives, he also serves as the Chairman on the Council of Management at the National Institute of Advanced Studies (NIAS) and the Chairman of the Governing Board at the Tata Institute of Social Sciences (TISS). He is also the President of the Society for Rehabilitation of Crippled Children (SRCC) - which is building a super speciality children's hospital in Mumbai. In recognition of Mr. Ramadorai’s commitment and contributions to the IT industry, he was awarded the Padma Bhushan (India’s third highest civilian honour) in 2006. In 2009, he was awarded the CBE (Commander of the Order of the British Empire) by Her Majesty Queen Elizabeth II for his contribution to the growth of Indo-British economic relations.

His academic credentials include a Bachelor’s degree in Physics from Delhi University (India), a Bachelor of Engineering degree in Electronics and Telecommunications from the Indian Institute of Science, Bangalore (India) and a Masters degree in Computer Science from the University of California – UCLA (USA). In 1993, Ramadorai attended the Sloan School of Management’s highly acclaimed Senior Executive Development Programme. Ramadorai is a well-recognized global leader and technocrat who has actively participated in the Indian IT journey from its inception in 1960's to a mature industry today.

Mr. Ramadorai has captured this exciting journey in a wonderfully personalized book titled 'The TCS Story...and beyond' which was published in 2011 and remained on top of the charts for several months. Among his many interests, Ramadorai is also passionate about photography and Indian classical music.
Executive Committee
As per the General Body meeting held on July 6, 2018

Chairperson Mr. S. Ramadorai
Former Vice Chairman, CEO & MD, Tata Consultancy Services
Former Chairman, National Skill Development Agency (NSDA)

Members Ms Preeti Sudan
Secretary, Ministry of Health & Family Welfare, GOI

Mr. J. V. R. Prasada Rao
UN Secretary General Special Envoy for AIDS, Asia & the Pacific

Dr. Abhay Bang
Founder and Director, Society for Education, Action and Research in Community Health (SEARCH)

Dr. Sunil Kaul
Founder & Managing Trustee, The Action North East Trust

Dr. Rati Godrej
Former Medical Advisor, US Consulate General, Mumbai

Prof. Maharaj K Bhan
Former Secretary, DBT, Government of India

Dr. Muzaffar Ahmad
Former DG Health, Govt. of J&K,

Mr. KRS Jamwal
Executive Director, TATA Industries

Dr. Abraham Joseph
Former Dean, CMC Vellore

Prof. K. Srinath Reddy
President, Public Health Foundation of India

General Body
As per the General Body meeting held on July 6, 2018

Chairperson Mr. S. Ramadorai
Former Vice Chairman, CEO & MD, Tata Consultancy Services
Former Chairman, National Skill Development Agency (NSDA)

Members Ms Preeti Sudan
Secretary, Ministry of Health & Family Welfare, GOI

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Mr. KRS Jamwal
Executive Director, TATA Industries

Dr. Abraham Joseph
Former Dean, CMC Vellore

Prof. K. Srinath Reddy
President, Public Health Foundation of India

Mr. Ved Kumar Jain
Founder & Mentor, Ved Jain & Associates
Dr. Sunil Kaul  
Founder & Managing Trustee, The Action North East Trust

Mr. Uday Nabha Khemka  
Vice Chairman, SUN Group

Mr. Gautam Kumra  
Director, McKinsey & Company

Mr. T. N. Manoharan  
Founder Partner, Manohar Chowdhary & Associates; Chairman, Canara Bank

Mr. Raj Mitta  
Chairman, Essential Value Associates Pvt. Ltd.

Dr. Peter Piot  
Director & Professor, London School of Hygiene & Tropical Medicine

Dr. Jagdish Prasad / Ex-Officio  
Director General of Health Services, Ministry of Health & Family Welfare, GOI

Mr. J. V. R. Prasada Rao  
UN Secretary General Special Envoy for AIDS, Asia & the Pacific

Prof. K. Srinath Reddy  
President, Public Health Foundation of India

Dr. Anil Seal  
Director, Cambridge Commonwealth Trust and Cambridge Overseas Trust

Dr. Amartya Sen  
Professor of Economics & Philosophy, Department of Economics, Harvard University

Dr. Jaime Sepulveda  
Executive Director, Global Health Sciences, University of California,

Mr. Raman Sharma  
Senior Partner, AZB & Partners

Mr. Michel Sidibé  
Executive Director, UNAIDS

Mr. Harpal Singh  
Chairman, Save the Children Mentor & Chairman Emeritus, Fortis Healthcare (India) Limited

Mr. Prashanth Vasu  
Partner, McKinsey & Company

Dr. Abraham Joseph  
Former Dean, Christian Medical College, Vellore

Dr. Partha Pratim Chakrabarti  
Director, Indian Institute of Technology (IIT), Kharagpur

Dr. AK Shiva Kumar  
Development Economist, Former Advisor to UNICEF, Faculty Ashoka University, Harvard University

Dr. Shalini Bharat  
Professor, Tata Institute of Social Sciences,

Dr. Shiv Vishwanathan  
Professor, Jindal University

Dr. Rati Godrej  
MD, Internal Medicine, Former Deputy Director, Asian Heart Institute

Mr. KRS Jamwal  
Executive Director, TATA Industries

Dr. K. Madhu Mohan  
Executive Medical Director, Doctors Community Hospital, Maryland

Mr. Ashok Jaipuria  
Chairman & MD Cosmo Films
List of Sub committees

Nominations Committee
Chairman, PHFI (Chair)
Health Secretary
Prof. M. K. Bhan
Dr. Abraham Joseph
Ms. Mirai Chatterjee
Dr. Sunil Kaul
President, PHFI (Convenor; Non-Voting)

Finance Committee
Mr. JVR Prasada Rao (Chair)
Mr. Harpal Singh
Dr. Muzaffar Ahmad
Dr. A.K. Shiva Kumar

Dr. Madhu Mohan
Ms. Ketoki Basu (External Expert: Co-Opted)
President PHFI
Vice President Finance (Convenor; Non-Voting)

Fund Raising Committee
Mr. Ashok Jaipuria
Mr. K.R.S. Jamwal
Dr. Rati Godrej
Dr. Madhu Mohan
President PHFI
To be Co-Opted
Vice President Operations (Convenor; Non-Voting)

Audit Committee
Mr. Ved Jain (Chair)
Dr. Shalini Bharat
Mr P.K. Sriraman (External Expert: Co-Opted)
Dr. Amarjit Singh (New EC Member, from Nov. 1)
President PHFI
To be Co-Opted
Vice President Finance (Convenor; Non-Voting)

Other responsibilities of EC members
Prof. Abraham Joseph: Chair Academic Advisory Committee (serving)
Prof. MK Bhan: Chair Research Advisory Committee (serving)

PHFI Academic Advisory Committee

Dr. Abraham Joseph (Chair)
Former Professor & Head, Community Medicine Department,
Christian Medical College, Vellore

Dr. Anurag Agrawal
Principal Scientist, CSIR Institute of Genomics & Integrative Biology (IGIB),
New Delhi

Dr. Sanjiv Kumar
Executive Director, National Health Systems Resource Centre (NHSRC),
New Delhi

Dr. S. Shanbhag
President, Health Care Initiatives, Reliance Foundation, Mumbai

Dr. Pat Doyle
Professor, Department of Non-communicable Disease Epidemiology, London
School of Hygiene and Tropical Medicine, London, UK

Prof. Asha Kishore
Director, Sree Chithra Tirunal Institute for Medical Sciences & Technology,
Trivandrum
Prof. Paras Pokharel  
Professor, School of Public Health & Community Medicine, BP Koirala Institute of Health Sciences, Dharan, Nepal

Prof. V. R. Muraleedharan  
Professor, Dept. of Humanities & Social Sciences, Indian Institute of Technology, Madras, Chennai

Prof. Girish Singh  
Director, All India Institute of Medical Sciences, Patna, Bihar

Dr. B. S. Garg  
Secretary - Kasturba Health Society, Director - Dr. Sushila Nayar School of Public Health, Director - Professor, Department of Community Medicine, Mahatma Gandhi Institute of Medical Sciences, Sewagram, Wardha, Maharashtra

Dr. Vidya Yeravdekar  
Principal Director - Symbiosis, Member - Board of Management Symbiosis, Symbiosis International University, Pune, Maharashtra

Dr. B. Karunakar Reddy  
Vice chancellor, Kaloji Narayana Rao University of Health Sciences, Kakatiya Medical College, Warangal, Telangana

Dr Sharad D. Iyengar  
Chief Executive, Secretary - Board Member, Paediatrician and a Public Health Professional, Action Research & Training for Health (ARTH), Udaipur, Rajasthan

PHFI Research Advisory Council

- Prof. M. K. Bhan (Chair)
- Dr Barry Bloom (Co-chair)
- Prof K Srinath Reddy (President PHFI)
- Prof D Prabhakaran (Member Secretary)
- Prof Nikhil Tandon (All India institute of Medical Sciences, New Delhi)
- Prof JP Muliyil (CMC Vellore)
- Prof Rifat Atun (Harvard School of Public Health)
- Prof Vijay Chandru (IISC): Genetics
- Dr Shankar Prinja (PGIMER): Health Economics
- Prof Lakshmi Lingam (TISS): Environmental Health
- Dr Usha Sriram (DIWWAAS): Diabetes and Women’s Health
- Prof Alan Dangour (LSHTM): Environment and food Systems
- Dr Abdul Ghaffar (WHO, Geneva, Health Systems)
- Prof Shiva S Halli (University of Manitoba) Reproductive and Child Health and HIV
- Prof Kay tee Khaw (University of Cambridge): Geriatrics and Nutrition
- Dr Sanghamitra Pati (ICMR)
Institutional Ethics Committee

Prof Nikhil Tandon
Chair - Clinician
Professor, Department of Endocrinology and Metabolism, All India Institute of Medical Sciences,

Dr. Tulsi Patel
Vice Chair, Member - Social Scientist
Professor of Sociology, University of Delhi (Retired), Prof. S K Dey Chair Institute of Social Sciences

Dr. Aastha Aggarwal
Member-Secretary
Research Scientist & Assistant Professor, Public Health Foundation of India

Mrs. Anjani Aiyagari
Legal expert
Advocate-on-record, Supreme Court of India

Dr. Monika Arora
Member- Public Health Specialist
Director, Health Promotion, Adjunct Associate Professor, Public Health Foundation of India,

Dr. Preeti Kumar
Member- Public Health Specialist
Vice President – Public Health Systems Support & Adjunct Associate Professor Public Health Foundation of India

Dr. Sakthivel Selvaraj
Member- Health Economist, Public Health Specialist
Director and Addl. Professor, Public Health Foundation of India

Dr. Smita N. Deshpande
Member- Psychiatrist
Consultant, Professor & Head

Prof. Sita Naik
Member- Physician scientist
Advisor, Apollo Hospital Educational and Research Foundation, Apollo Group of Hospitals, New Delhi

Dr. Rakhi Dandona
Member- Epidemiologist
Additional Professor, Public Health, Public Health Foundation of India

Dr. Rajesh Sagar
Member-Psychiatrist
Professor, Department of Psychiatry, All India Institute of Medical Sciences

Dr. Ashok Agarwal
Public Health Expert
Project Director - HIV/TB/Malaria Programme, Public Health Foundation of India

Ms. Alka Kher
Member- Lay person
Principal, St. Mark’s Sr. Sec. Public School

Dr. Raj Panda
Senior Public Health Specialist
Additional Professor, Public Health Foundation of India
Leadership at PHFI

Professor K. Srinath Reddy
President, PHFI

Professor Sanjay Zodpey
Director - IIPH Delhi and Vice President (Academics)

Professor D. Prabhakaran
Director Centre for Chronic Conditions & Injuries (CCCI)- Vice President (Research & Policy)

Mr. Jayanto Narayan Choudhury
Vice President (Operations)

Professor Dileep Mavalankar
Director IIPH, Gandhinagar

Professor GVS Murthy
Director IIPH-Hyderabad

Dr Subash Salunke
Senior Advisor Health Systems Support & Officiating Director - IIPH (Bhubaneswar)

Dr Lipika Nanda
Vice President-Multi Sectoral Planning in Public Health

Mr Anil Chugh
Vice President - Finance & Resources

Professor Sandra Albert
Acting Director IIPH - Shillong

Professor Gita Sen
Distinguished Professor and Project Director

Professor Lalit Dandona
Distinguished Research Professor

Dr Preeti Kumar
Vice President-Public Health System Support

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Year Gone By

April 2017-June 2017

May 2017: May Measurement Month- Indian Council for Medical Research (ICMR), PHFI and the International Society of Hypertension (ISH) launched Campaign to raise awareness on Hypertension in India

June 2017: National Consultation on Environmental Health organised by the Centre for Environmental Health to observe World Environment Day
July 2017–September 2017

August 2017: Parliamentarians Roundtable on Healthcare in the North-East India organised in New Delhi

September 2017: North-East Healthcare Summit organised in Gangtok

September 2017: PHFI won the prestigious QCI- DL Shah Platinum award for skill building of primary care physicians for treating chronic conditions in India for the year 2017
**October 2017–December 2017**

*November 2017:* “India: Health of the Nation’s States – The India State-Level Disease Burden Initiative” describing the State Level Disease findings was released by the Hon’ble Vice-President of India, Shri M Venkaiah Naidu, along with the Hon’ble Union Minister of Health and Family Welfare Shri J P Nadda and the Hon’ble Minister of State for Health and Family Welfare Smt Anupriya Patel in New Delhi.

*November 2017:* International Conference organised by the Public Health Foundation of India and the Pacific Basin Consortium on Environmental Health and Sustainable Development.
January 2018-March 2018

IIPH Hyderabad organised an International Conference on Evidence in Global Disability and Health

Indian Institute of Public Health Gandhinagar developed and implemented India’s first Climate Resilience Heat/Cold Action Plan for Rural Settings in Rajasthan
April 2018–June 2018


June 2018: PHFI, NITI Aayog, IDS and Amref organised the Innovations for Universal Health Coverage (UHC) Conclave in Bengaluru, Karnataka, India
August 2018: PHFI won the FICCI - Healthcare Excellence Awards 2018 (10th Edition) for Skill Development

August 2018: IIPH Bhubaneswar technical lead for health at the Odisha Vikas Conclave

August 2018: PHFI organised a National Seminar on Tobacco Cessation: Beyond the 5As
Academic Programmes
Academic Programmes

On-campus and eLearning (eL) academic

PHFI’s core mandate is to strengthen public health education in the country by offering high-quality, long term academic programmes and short term training programmes delivered through a multipronged, cross cutting and integrated approach to education. This capacity building is central to PHFI’s vision for strengthening India’s public health institutional and systems capacity for better health outcomes. PHFI has purposefully sought to provide its academic offerings as a wide spectrum targeting a varied audience from the public and the private sector. We visualize our academic engagements across four levels of specialization: short courses, certificates, post graduate diploma, masters and doctoral programmes.

![Figure 1: Spectrum of PHFI academic programmes](image)

Our academic journey
- 5 fully functional Indian Institutes of Public Health (IIPH) and One Satellite Campus (Bengaluru)
- 8 on-campus programmes & 22 eLearning programmes [2018-19]
- 2400 enrolments for on-campus programmes & 5332 enrolments for eL programmes till date
- 242 scholarships awarded for on-campus students
- 91% placements since inception for on-campus graduates
- 17187 participants trained through 682 short-term trainings till date
- Rich pool of 50 full time faculty members, 124 adjunct faculty members
- Multiple national and international academic collaborations
- Regular participant feedback solicited as part of a quality improvement loop
- Academic systems and processes in place to offer state-of-the-art learning experience
Figure 2: On-Campus Academic Programmes at Indian Institutes of Public Health

- **IIPH-Delhi**
  - PhD (Full time) in Health Sciences/Public Health
  - Integrated MSc & PhD in Clinical Research
  - MPH
  - PGDPHM

- **IIPH-Gandhinagar**
  - PhD in Public Health
  - MPH
  - MHA
  - PGDPHM
  - AFIH

- **IIPH-Bangalore Campus**
  - PGDPHM

- **IIPH-Hyderabad**
  - Integrated MSc & PhD in Health Informatics
  - MPH
  - PGDPHM

- **IIPH-Shillong**
  - PGDPHM (Proposed)

- **IIPH-Bhubaneswar**
  - MPH (Proposed)
  - PGDPHM

---

Figure 3: Faculty Resources for Academic Programmes

**IIPH Faculty: 50 (Male-30; Female-20)**

**Adjunct Faculty: 124**

- IIPH-Bhubaneswar: 5
- IIPH-Delhi: 14
- IIPH-Gandhinagar: 17
- IIPH-Hyderabad: 9
- IIPH-Bangalore Campus: 4
- IIPH-Shillong: 1

**Departmental affiliations of faculty across IIPHS**

- Environmental & Occupational Health (Including Urban Health): 6%
- Epidemiology, Biostatistics and Demography: 30%
- Social & Behavioural Sciences: 12%
- Health Services Management: 30%
- Health Economics, Financing and Policy: 10%
- Others: 4%

As on 20th September, 2018
The academics segment has regularly responded to the public health education priorities of the country. We work closely with the Ministry of Health and Family Welfare (MoHFW), Government of India, state governments and other academic institutions to strengthen public health capacity. We have consistently diversified our academic offerings, and the academic portfolio has witnessed impressive growth since the launch of our first programme in 2008-09. We have consciously provided opportunity to bright and eager minds from diverse professional backgrounds for enrolling in our on-campus programmes. This diversity in enrolment criteria helps enrich our classroom discussions and fosters a spirit of team-work in the classroom. Till date, female students constitute 43.3% of our on-campus students and government nominations constitute 33.7% of our total intake. For the current academic batch, the mean age for government nominated students is 41 years (range: 25 to 56 years) while it is 27 years (range: 19 to 61) for self-sponsored students.

![Number of eL programs](image)

**Figure 4: Annual progression and evolution of PHFI on-campus and eLearning programmes**
On-campus programmes

1. PhD (Full time) in Health Sciences/Public Health [at IIPH-Delhi in affiliation with Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Trivandrum (An Institute of National Importance under Govt. of India)]
2. PhD in Public Health [offered by IIPH Gandhinagar, a university under State Government Act]
3. Integrated MSc & PhD in Clinical Research [offered in collaboration with Academy of Scientific and Innovative Research (AcSIR), (An Institute of National Importance established by Act of Parliament)]
4. Integrated MSc & PhD in Health Informatics [offered in collaboration with Academy of Scientific and Innovative Research (AcSIR), (An Institute of National Importance established by Act of Parliament)]
5. Master of Public Health (MPH) [at IIPH-Gandhinagar (a university under State Government Act); at IIPH-Hyderabad in affiliation with Kaloji Narayana Rao University of Health Sciences, Telangana; IIPH-Delhi in affiliation with Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Trivandrum (An Institute of National Importance under Govt. of India)]
6. Master of Hospital Administration (MHA) [at IIPH Gandhinagar, a university under State Government Act]
7. Post Graduate Diploma in Public Health Management [Supported under National Health Mission (NHM), MoHFW, Govt. of India]
8. Associate Fellow of Industrial Health [Regulated by Directorate General, Factory Advice Service and Labour Institutes, Govt of India (DGFASLI)]

eLearning Programmes

ePost Graduate Programmes (1 year)
- Public Health Nutrition
- Health Promotion
- Epidemiology
- Management of RCH Programmes
- Public Health and Hospital Management for Nursing and Allied Health Professionals
- Public Health Services Management
- Health Economics, Health Care Financing and Policy
- Executive Post Graduate Diploma in Public Health Nutrition-Afghanistan

eCourses (3-6 months)
- Research Methodology
- STI & HIV/ AIDS
- Monitoring and Evaluation of Health Programmes
- GIS Application in Public Health
- Health, Safety and Environment Management
- Tobacco Control
- Good Public Health and Clinical Laboratory Practice
- Health System Strengthening
- Research Ethics
- Effective Grant Writing in Public Health
- Public Health Development for ICDS Officials
- Advanced Programme in Hospital Management
- Certificate Course in Clinical Research Methods for DNB Students
Figure 5: Growth in on-campus and eLearning programme enrolments

Figure 6: Geographical Distribution of Students Enrolled in Academic Programmes Across IIPHS

*Enrolments on-going

Numbers mentioned are in percentages
Distinctive features of PHFI on-campus programmes

- Inter-disciplinary approach
- Competency driven curriculum
- Linkages with public health practice
- Emphasis on problem solving, case based learning
- Use of innovative pedagogy
- Focus on transformative learning

Distinctive Features of PHFI Centre for eLearning

- Wide range of programmes in key areas of public health
- State of the art Learning Management System
- Enriching virtual classroom experience
- Competency driven curriculum
- Multidisciplinary faculty
- Self-paced learning
- National and international collaborations

We are pioneers in launching eLearning programmes for public health in 2010 for India. We cater to a large eLearning market through our State-of-the-art DL platform. We have launched a Massive Open Online Course (MOOC) on Global Public Health in the year 2015 in collaboration with the UN Sustainable Development Solutions Network (www.unsdsn.org). Looking at the strong online presence of PHFI and IIPHs through its eLearning Programmes, Ministry of Human Resource Development (MHRD) have invited PHFI and IIPHs to offer eLearning programmes through MOOC Platform - SWAYAM.

Demand and supply for public health professionals needs to be driven simultaneously. PHFI not only recognises the importance of facilitating the placement of our graduates but is also engaged in creating new openings. Our academic team has undertaken mapping of public health jobs in India. Various studies have been undertaken by a dedicated team led by senior colleagues at PHFI - to identify potential career options, opportunities and challenges for public health graduates to work in both public and private health sectors in India. We have undertaken an assessment of the need for public health professionals at the country level. Public health has multiple opportunities (epidemiologist, statistician, demographer, health economist, occupational health programme leader etc.) where public health
professionals will eventually work. We undertook a needs assessment wherein we quantified the supply side and the need for professionals in that role at the country level. This work is published across numerous journal articles and has been summarized in a monograph.

PHFI graduates are placed in both public and private health sectors. Several graduates have significantly contributed towards advancing the public health agenda. The overall feedback regarding PHFI graduates has been very positive from the employers. We have successfully placed 91% of our self-sponsored students from on-campus programmes within 3 months of their graduation. We have also worked closely with the industry and its CSR outreach to connect with communities.

India has a large shortage of trained public health professionals. Through our academic initiatives, PHFI has substantially contributed towards public health capacity building. Since inception, PHFI has produced 1479 graduates from on-campus programmes and 3556 graduates from eL programmes. Through these initiatives PHFI visualizes a core team of graduates who will partner and work for supporting national public health initiatives.

Our academic team seeks feedback from current students (module feedback, annual programme experience, quotes), alumni (case studies, quotes), faculty, visiting faculty, employers of our alumni and visitors. The details of the quality assurance processes and stakeholders at each stage of the programme cycle have been outlined in quality assurance SOP for use by each IIPH.

Figure 7: Feedback reports for on-campus and eLearning programmes
**INFOSYS Fellowships in Public Health**

INFOSYS Foundation in association with Public Health Foundation of India (PHFI), instituted Public Health fellowships called ‘INFOSYS Fellowships in Public Health’ with the aim to identify and train a cohort of bright public health students at the Indian Institutes of Public Health (IIPHs), who could meaningfully engage with non-governmental organisations, working to improve population health. This capacity building initiative not only aimed to strengthen and support the organisations the graduates were placed but also contribute towards community development.

The fellowship follows a rigorous selection process and provides an opportunity to the meritorious students to apply their knowledge and gain hands on field experience in public health while working with reputed organisations in the field of public health in India.

The INFOSYS Fellowships have been awarded to 25 students enrolled in Master of Public Health Programme at the Indian Institutes of Public Health (IIPH) at Delhi, Gandhinagar and Hyderabad. The ‘INFOSYS Fellows’ are entitled to: (i) tuition fee waiver for the entire MPH programme for 2 years at the IIPH and (ii) placement in the identified NGO working for public health in India for a period of two years after completion of the MPH programme with salary support of INR 50,000/- per month.

**INFOSYS Fellowships comprises of following two phases:**

**PHASE 1**

The provisionally selected INFOSYS Fellows undergo the MPH Training in one of the Indian Institutes of Public Health (IIPHs) and complete the MPH Programme successfully after fulfilling all requirements of the course. During this Phase, the INFOSYS Fellowship provides for full Tuition Fee waiver for the MPH Programme.

**PHASE 2**

In the second phase, after successfully completing the MPH Programme the fellows are with one of the identified NGO. During this Phase, the INFOSYS Fellow receive a monthly stipend towards their services rendered to the NGO from PHFI.

*Completion of both the Phases (1 & 2) is mandatory to avail the fellowship.*
The list of students selected for INFOSYS Fellowships in the two batches (MPH 2016 – 18 and 2017 – 19) are as follows:

**ROUND 1: List of Selected INFOSYS Fellows (MPH 2016 – 18 batch) with assigned NGO for Placement:**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Selected INFOSYS Fellows</th>
<th>IIPHs</th>
<th>NGO Assigned after Matching Exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sonali Randhawa</td>
<td>IIPH Delhi</td>
<td>Piramal Foundation, Hyderabad</td>
</tr>
<tr>
<td>2.</td>
<td>Akanksha Shukla</td>
<td>IIPH Delhi</td>
<td>Janeseva Foundation, Pune</td>
</tr>
<tr>
<td>3.</td>
<td>Shubh Aastha Sharma</td>
<td>IIPH Delhi</td>
<td>SEARCH, Gadchiroli, Maharashtra</td>
</tr>
<tr>
<td>4.</td>
<td>Sandeep Soni</td>
<td>IIPH Delhi</td>
<td>Deepak Foundation, Vadodara, Gujarat</td>
</tr>
<tr>
<td>5.</td>
<td>Nagma Nigar Shah</td>
<td>IIPH Gandhinagar</td>
<td>Child in Need Institute, 24 Parganas, West Bengal</td>
</tr>
<tr>
<td>6.</td>
<td>Manas Sharma</td>
<td>IIPH Gandhinagar</td>
<td>Karuna Trust, Bangalore</td>
</tr>
<tr>
<td>7.</td>
<td>Preeti Bhandari</td>
<td>IIPH Gandhinagar</td>
<td>SEWA Rural, Bharuch, Gujarat</td>
</tr>
<tr>
<td>8.</td>
<td>Divya Sharma</td>
<td>IIPH Gandhinagar</td>
<td>Lok Swasthya Sewa Trust, Ahmedabad</td>
</tr>
<tr>
<td>9.</td>
<td>Thella Ramesh</td>
<td>IIPH Hyderabad</td>
<td>MAHAN Trust, Wardha, Maharashtra</td>
</tr>
<tr>
<td>10.</td>
<td>Anusha Pilli</td>
<td>IIPH Hyderabad</td>
<td>Karuna Trust, Bangalore</td>
</tr>
</tbody>
</table>

**ROUND 2: List of Provisionally Selected INFOSYS Fellows (MPH 2017 – 19) and Waitlist (IIPH wise)**

<table>
<thead>
<tr>
<th>Provisionally Selected Candidates</th>
<th>IIPHG</th>
<th>IIPHD</th>
<th>IIPHH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dr Ritesh Kumar</td>
<td>Priya Lodhi</td>
<td>Dr Sandhya AP</td>
</tr>
<tr>
<td>2.</td>
<td>Dr Ajith J S</td>
<td>Archana Ashok</td>
<td>Dr R. Vaishali</td>
</tr>
<tr>
<td>3.</td>
<td>Dr Shailaja Shah</td>
<td>Sana Ansari</td>
<td>Dr Shriyuta Abhishek Bajpai</td>
</tr>
<tr>
<td>4.</td>
<td>Ms Dhanashree Apsingekar</td>
<td>Pankaj Patel</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Mr Mohit Sood</td>
<td>Chandashekhar Bohara</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Dr Apoorva Singh Chauhan</td>
<td>Pratiksha Kashyap</td>
<td></td>
</tr>
</tbody>
</table>

The fellows selected in the first batch have completed the MPH Programme at IIPH Delhi and Gandhinagar have been placed in NGOs for completion of placement phase. Fellows from IIPH Hyderabad will be joining their Placements in January 2019.

Fellows selected in the second batch of MPH 2017 –19 are undergoing training and will pass out in July / August 2019.
PHFI’s Proposal for Institution of Eminence gets Empowered Expert Committee Endorsement for special status

In response to the notification by UGC inviting proposals for Institutions of Eminence, a proposal was submitted to UGC from Public Health Foundation of India (PHFI), as a sponsoring body to set up Institute of Public Health Sciences (IPHS) in Hyderabad under the Greenfield category on 22nd February 2018. This was intended to establish the IPHS on the land that has been allotted by the government of Telangana. The existing Indian Institute of Public Health (IIPH) at Hyderabad would be absorbed into the IPHS.

PHFI was shortlisted among the 40 institutions invited to make a presentation to the Empowered Expert Committee (EEC). Forty global institutes of repute extended support to the PHFI.

The Report of the EEC for Institutions of Eminence has been uploaded on UGC website. In the Section V of the report, under Para 4 sub heading B ’Suggestions’ it has been recommended by EEC that the establishment of Institute of Public Health Sciences, Hyderabad be encouraged and given necessary flexibility in regulatory framework (similar to category 1 autonomy), funds and other such dispensation as deemed fit, subject to the usual stipulations of ensuring their subsequent accountability. The EEC observed that the proposed IPHS and its area of work -public health - can be truly called unique and important for the strategic needs of the country and it is being pursued in a manner that no conventional or existing institution is otherwise attempting. No other institutions were imparting the kind of education that was needed (multidisciplinary, health system connected) or undertaking the scale and quality of research needed to serve the country (by advancing public health goals through knowledge generation and knowledge translation).

The UGC decision on its EEC recommendation is awaited.
Training Programmes
Training Programmes

Short term training programmes

Each year we organise a series of short term trainings for self-sponsored candidates. These trainings are widely advertised and well subscribed by participants. We offer skill based short term trainings that are useful for building required public health competencies among professionals. We also closely work with the government and organize trainings for them on special requests.

We have conducted 682 trainings and have trained 17187 people so far through trainings conducted at PHFI Central and our IIPHS. PHFI also undertakes training needs analyses to determine possible areas of topical interest, identifying domains where knowledge and skill-building are required. We have undertaken systematic efforts towards Training Needs Assessments (TNA) for multiple Indian states (for e.g. Jharkhand, Madhya Pradesh, Uttarakhand and Delhi). The TNA activity has helped us to identify priority areas for health systems and offer customized short-term training programmes. We have several tailor-made programmes in niche areas such as field epidemiology, monitoring and evaluation, operations research in HIV/AIDS, Geographic Information Systems, Qualitative Research Methods and Data Analysis to name a few. We regularly receive positive feedback from our national and international trainees and stakeholders. We have multiple requests for conducting additional rounds of trainings as per our stakeholders’ request. This exhibits acceptability and ‘repeat value’ of our trainings programmes and has led to our long-term engagement with the stakeholders.

Figure 1: PHFI Training Programmes – Distribution of Domains
A list of the trainings that we have conducted since 1st April 2017 is as follows:

IIPH-Delhi has recently been approved by Central Council for Research in Ayurvedic Sciences, Ministry of AYUSH, Govt. of India to conduct short-term training of 100 participants on “Proposal writing for grant submission and report writing for AURVEDA researchers”.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Title</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Capacity building on Urban Health Programme Planning &amp; Management</td>
<td>Public Health Management and Health Economics</td>
</tr>
<tr>
<td>2</td>
<td>Psychological counselling in Health settings</td>
<td>Nutrition and allied health sciences</td>
</tr>
<tr>
<td>3</td>
<td>Research Methodology for DNB students - 15 batches</td>
<td>Quantitative Research Methods</td>
</tr>
<tr>
<td>4</td>
<td>Medical Anthropology in Public Health</td>
<td>Public Health Management and Health Economics</td>
</tr>
<tr>
<td>5</td>
<td>Medical Writing</td>
<td>Quantitative Research Methods</td>
</tr>
<tr>
<td>6</td>
<td>Genetics and Public Health</td>
<td>Quantitative Research Methods</td>
</tr>
<tr>
<td>7</td>
<td>Qualitative Data Analysis workshop</td>
<td>Qualitative Research Methods</td>
</tr>
<tr>
<td>8</td>
<td>Monitoring and Evaluation of Nutrition Programmes</td>
<td>Public Health Management and Health Economics</td>
</tr>
<tr>
<td>9</td>
<td>Multilevel Modeling in Health Research using Stata</td>
<td>Quantitative Research Methods</td>
</tr>
<tr>
<td>10</td>
<td>Measuring Equity in Health Financing and Delivery - Utilising Household Survey Data</td>
<td>Public Health Management and Health Economics</td>
</tr>
<tr>
<td>11</td>
<td>Impact Evaluation: Public Programmes in Health</td>
<td>Public Health Management and Health Economics</td>
</tr>
<tr>
<td>12</td>
<td>Project Management of Health Programmes-2 batches</td>
<td>Public Health Management and Health Economics</td>
</tr>
<tr>
<td>13</td>
<td>Field Epidemiology Training Programme (FETP) under Integrated Diseases Surveillance Project (IDSP) - 2 batches</td>
<td>Public Health Management and Health Economics</td>
</tr>
<tr>
<td>14</td>
<td>Nutritional Management of Children with Severe Acute Malnutrition (SAM): A capacity building workshop</td>
<td>Nutrition and allied health sciences</td>
</tr>
<tr>
<td>15</td>
<td>Cancer Research and Control</td>
<td>Quantitative Research Methods</td>
</tr>
<tr>
<td>16</td>
<td>Applied Methods of Equity Analysis in Healthcare Financing</td>
<td>Public Health Management and Health Economics</td>
</tr>
<tr>
<td>17</td>
<td>Statistical Analysis using Stata</td>
<td>Biostatistics and Data Management</td>
</tr>
<tr>
<td>18</td>
<td>Two Day Intensive Training on Effective Public Health Programme Management and Implementation (Imphal, Manipur)</td>
<td>Public Health Education</td>
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<tr>
<td>S.No</td>
<td>Title</td>
<td>Domain</td>
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<tr>
<td>19</td>
<td>Ethics in Clinical Research</td>
<td>Quantitative Research Methods</td>
</tr>
<tr>
<td>20</td>
<td>Introductions to Multivariable Analysis using Stata</td>
<td>Quantitative Research Methods</td>
</tr>
<tr>
<td>21</td>
<td>Effective Behaviour Change Communication Strategies in Public Health</td>
<td>Public Health Management and Health Economics</td>
</tr>
<tr>
<td>22</td>
<td>Sample Size Estimation and Sampling Techniques</td>
<td>Biostatistics and Data Management</td>
</tr>
<tr>
<td>23</td>
<td>Economic Evaluation of Health Care Programmes</td>
<td>Quantitative Research Methods</td>
</tr>
<tr>
<td>24</td>
<td>Basic statistical analysis using SPSS</td>
<td>Biostatistics and Data Management</td>
</tr>
<tr>
<td>26</td>
<td>Design and Conduct of Observational using Epi Info</td>
<td>Quantitative Research Methods</td>
</tr>
<tr>
<td>27</td>
<td>Systematic Reviews and Meta-analysis using RevMan</td>
<td>Quantitative Research Methods</td>
</tr>
<tr>
<td>28</td>
<td>Monitoring and Evaluation of Health Programmes for Improved Decision Making</td>
<td>Public Health Management and Health Economics</td>
</tr>
</tbody>
</table>

**IIPH-Gandhinagar**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Title</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project Management for Quality Improvement in Health Care - 10 batches</td>
<td>Public Health Management and Health Economics</td>
</tr>
<tr>
<td>2</td>
<td>Short Course on Environmental Health</td>
<td>Public Health Management and Health Economics</td>
</tr>
<tr>
<td>3</td>
<td>W507-Health Effect of Hazardous substances</td>
<td>Qualitative Research Methods</td>
</tr>
<tr>
<td>4</td>
<td>Certificate Course in Community Health For Nurses</td>
<td>Public Health Education</td>
</tr>
<tr>
<td>5</td>
<td>Enhance capacities of provincial public health directors of Ministry of Public Health in management skills and leadership qualities to accelerate achieving SDG 3 - Better Health Outcomes</td>
<td>Public Health Education</td>
</tr>
<tr>
<td>6</td>
<td>Prevention and Control of Mosquito breeding and Mosquito borne disease for Engineers and Allied professionals engaged in Water Resource Management.</td>
<td>Public Health Management and Health Economics</td>
</tr>
</tbody>
</table>
### IIPH-Hyderabad

<table>
<thead>
<tr>
<th>S.No</th>
<th>Title</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Capacity Building of Health Professionals In Research Methodology: Writing A Research Proposal (NBE ) - 11 batches</td>
<td>Quantitative Research Methods</td>
</tr>
<tr>
<td>2</td>
<td>Public Health Planning for Hearing Impairment</td>
<td>Public Health Management and Health Economics</td>
</tr>
</tbody>
</table>

### IIPH-Bengaluru

<table>
<thead>
<tr>
<th>S.No</th>
<th>Title</th>
<th>Domain</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Costing of health services</td>
<td>Quantitative Research Methods</td>
</tr>
<tr>
<td>2</td>
<td>Orientation of District Officials on implementing Health &amp; Wellness Centres for delivering comprehensive Primary Health Care under Universal Health Coverage programme</td>
<td>Public Health Education</td>
</tr>
<tr>
<td>3</td>
<td>Orientation to District Health &amp; Wellness coordinators under CPHC, Universal Health Coverage programme</td>
<td>Public Health Education</td>
</tr>
<tr>
<td>4</td>
<td>Empowering Aspiring Leaders</td>
<td>Public Health Education</td>
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</tbody>
</table>

### IIPH-Bhubaneswar

<table>
<thead>
<tr>
<th>S.No</th>
<th>Title</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Workshop on GIS Application in Public Health</td>
<td>Public Health Management and Health Economics</td>
</tr>
<tr>
<td>2</td>
<td>CME workshop on Research methods &amp; protocol writing - 4 batches</td>
<td>Quantitative Research Methods</td>
</tr>
</tbody>
</table>

### IIPH-Shillong

<table>
<thead>
<tr>
<th>S.No</th>
<th>Title</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Public health analytics and disease modelling</td>
<td>Quantitative Research Methods</td>
</tr>
</tbody>
</table>
Training and Capacity Building Programmes in Chronic Conditions

India, which has been battling infectious diseases for decades now, faces a new challenge – non communicable diseases (account for over 60 percent deaths annually). As the country shapes its response to this added priority in our health agenda and the Sustainable Development Goals, Primary Care Physicians (PCPs) have a pivotal role to play in combating this alarmingly rising epidemic. PHFI has designed an innovative and collaborative model to enhance the skills and core competence of the PCPs by offering once a month contact based training courses on diagnosis, treatment and management of several of the chronic and complex conditions by means of evidence based curriculum, delivered over a year. These are designed and delivered with the support of various National and Internationally renowned academic/technical partners, aided by educational grant from various stakeholders and are closely monitored.

Outreach

Over 22,058 participants have been trained in these initiatives till the end of October 2018 with a focus on diabetes, gestational diabetes/ thyroid disorders/cardio-diabetes/hypertension/diabetic retinopathy/COPD and Asthma/CVD & Stroke. The participants are distributed over 581 of the 712 (81%) districts in India.

This model has been adopted by various state governments (National Health Mission- Gujarat, Madhya Pradesh, Haryana, Orissa, Uttarakhand, Tripura, Meghalaya, Mizoram, Assam, Kerala and Kolkata Municipal Corporation) and other neighbouring countries (Nepal, Myanmar, Bangladesh, Afghanistan, Africa, East Africa to name a few). The programmes have been recognized by various international bodies and have also won various awards (BMJ India award 2014 as a finalist, various Industry Associations’ award- FICCI, CII, PHD, ASSOCHAM for skill development, QCI- DL Shah Platinum award 2017).

Figure 1: Implementation model of the capacity building initiatives
Target population

The target population are the Primary Care Physicians, working in both public and private settings and the Medical Officers working at sub centers/ PHC/ CHC/ District Hospitals under National Health Mission. PHFI is working closely with various state governments for building the capacity of Medical Officers in NCD Care and Management. The capacity building initiatives are aligned with the existing NPCDS programme of Govt. of India for strengthening NCD care and management at Primary and Secondary level.
Course objectives

Primary Objective
To enhance knowledge, skills and core competencies of Primary Care Physicians in the management of chronic conditions.

Secondary Objectives
- To develop/update a standard teaching protocol and module for evidence based learning on chronic conditions.
- To build a network of Primary Care Physicians and specialists in the field of chronic conditions.
- Update primary care physicians with the latest advancements in the field of chronic conditions.

The programmes under the division are as follows:

1. Certificate Course in Evidence Based Diabetes Management (CCEBDM). http://ccebdm.org/
3. Advanced Certificate Course in Prevention and Management of Diabetes and Cardiovascular Disease (ACMDC) http://www.acmdc.org.in/
4. Certificate Course in Management of Thyroid Disorders (CCMTD) http://www.ccmtd.org/
5. Certificate Course in Evidence Based Management of Diabetic Retinopathy (CCDR) http://www.ccdr.org.in/
6. Certificate Course in Management of Hypertension (CCMH) http://www.ccmh.org.in/
7. Certificate Course in COPD and Asthma (CCCA) http://www.ccca.org.in/
8. Health Emergencies in Large Populations (HELP course) http://helpcourse.org/
10. Certificate Course in Women’s health (CCWH) http://ccwh.org.in/
11. Certificate Course in Cardiovascular Disease and Stroke (CCCS) http://cccs.org.in/
Our growth Trajectory - Journey over the past 9 years

Year wise training programs

Year wise States & UTs covered

Year wise Enrolled Participants

Year wise Districts Covered
## Annual Implementation, results and achievements in year 2017-18 (April 2017 - till date)

**Programmes conducted**

<table>
<thead>
<tr>
<th>Programmes</th>
<th>Cycle</th>
<th>Count of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACMDC (Cardiodiabetes)</td>
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<td>CCCA (COPD &amp; asthma)</td>
<td>Assam Govt.</td>
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<td>CCCS (CVD &amp; stroke)</td>
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<td>Cycle 3</td>
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<td>MP Govt.</td>
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<td></td>
<td>PSU-RIL-Jamnagar</td>
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<td>CCEBDM (Evidence based diabetes)</td>
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<td>CCMTD (Thyroid disorders)</td>
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<td><strong>Grand Total</strong></td>
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<td><strong>5641</strong></td>
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**Participants trained**

This year, we have trained 5641 healthcare professionals. Though these programmes were meant for primary care physicians to enable them to screen and carry out initial management of chronic conditions, close to 40% of trained participants are post graduates (2227 out of 5641). Though private and govt. physicians both are eligible to be a part of these courses, approximately 45 % (2508) of govt. candidates have voluntarily enrolled for this course through self-pay.
Geographical Coverage

This year, our courses were conducted in 207 centers across 107 cities in 27 states and UTs.

Accreditations & recognitions

1. CCCS course has an endorsement by Royal College of Physicians, London for 5 years till 2022.
2. CCDR course received endorsement from UK Research and Innovation GCRF
3. International Primary Care Respiratory Group (IPCRG) recognized CCCA for 5 years from 2018 – 2022.

Awards and accolades

1. PHFI received the award for ‘Best NGO: Skill Development’ at ASSOCHAM 2017 from Shri Rajiv Pratap Rudy, Ex-Minister of Skill Development and Entrepreneurship, Government of India
2. PHFI won the prestigious QCI- DL Shah Platinum award for skill building of primary care physicians in chronic conditions in India for the year 2017.
4. Best NGO/Education award in CII’s National Excellence Practice Competition 2018

Other awards won in past years include

b. PHD Chamber Award for Excellence in Skill Development for the Year 2015
c. The Diabetes Excellence Award for Community Service towards diabetes care during Apollo Sugar International Diabetes update-2016
d. FICCI Heal 2015 certificate for capacity building in healthcare
e. Assocham commendation for Skill Development -2016
New courses in pipeline

1. E learning initiative - Certificate Course in Evidence Based Management of Diabetic Retinopathy in collaboration with BOSCH

   a) Healthcare Programme Management (HPM)
   b) Healthcare Programmes: Monitoring, Evaluation, Learnings and follow-up Action

3. Certificate course in healthcare technology: Certificate Course in Healthcare Technology will be a collaborative effort of Public Health Foundation of India (PHFI), New Delhi, Association of Healthcare Providers (India) (AHPI), Indian Institute of Science, (IISc), Bengaluru and Indian Institute of Space Science & Technology (IIST), Bengaluru.

4. E learning initiative - Certificate Course in Management of Hypertension in collaboration with American Heart Association
Government Adoptions

Training division has collaborated with 11 state government/government body to implement its training initiatives

PHFI also collaborated with NHM, Govt. of Tripura for various capacity building initiatives in cardio-diabetes, gestational diabetes, diabetic retinopathy, hypertension, thyroid and COPD & Asthma for training of their Medical Officers. Under this collaboration, NHM, Tripura now has become the second state (after Madhya Pradesh), to declare PHFI as a Skill Building/Training Partner for various capacity building courses for Healthcare Professionals. Over 250 Medical Officers are to be trained in these initiatives.
Overview of Research at PHFI

Public Health Foundation of India conducts cutting edge research to convert scientific evidence into policy. In a period of ten years, the organization has emerged as a pre-eminent institute of public health research, synthesizing scientific knowledge to actionable policy while focusing on building a cadre of public health leaders. Bridging critical knowledge gaps, deploying the principles of implementation science to programmatic strengthening and influencing changes in policy that are informed by evidence from research forms the cornerstone of our work.

PHFI has made a prolific range of national and international collaborations including a strong partnership with the government agencies and a wide range of funders. The plethora of publications (2853) with an average impact factor of 6.73 exemplifies the quality of our work. According to the Boston Consulting group, which did a ten-year review on PHFI, our citation per paper is equivalent to world renowned institutions such as Johns Hopkins School of Public Health.

With an assimilative approach, PHFI has made concerted efforts that create social impact through research by providing evidence to or evaluating programmes to make healthcare holistic, affordable, accessible and sustainable to end-level beneficiaries and some of the most vulnerable social groups. Among the illustrious and impactful research work, a study conducted in Tamil Nadu to understand HIV-related stigma and interventions can be cited as an instance where a simple intervention increased access to health care and higher uptake of antiretroviral drugs by this highly sensitive and vulnerable patient population.

Since its establishment in 2006, research has been an important pillar spanning across a wide range of disciplines, diseases, determinants and health systems components, including both investigator-led projects in response to Request for Proposal (RFPs) by funding agencies as well as implementation science projects negotiated with a funder. PHFI faculty and research staff has expertise in a range of disciplines pertinent to public health such as health economics, health systems and financing, policy analysis, epidemiology, clinical research, genetics, nutrition, biostatistics and demography. Research in all these disciplines is conducted at PHFI and its network of campuses. Four Centres of Excellence currently coordinate research in specific thematic areas: the Centre for Chronic Conditions & Injuries (CCCI) on non-communicable diseases and mental disorders at the PHFI; the South Asia Centre for Disability Inclusive Development & Disability (SACDIR) at the IIPH-Hyderabad; the Ramalingaswami Center for Social Determinants of Health at Bangalore and the Centre for Environmental Health at PHFI Central.
Research at PHFI - Snapshot

Aligned To
- Burden of Disease
- Priorities of NHP
- MDG & SDG

The process
- Faculty/Researcher initiated research at PHFI central and IIPH or invited
- 4 Funded Centers of Excellence (COE): Chronic Diseases; Environmental Health; Disability; Social Determinants of Health
- 2 Fogarty International Centres for Training & Research

The people: Strong investment in developing Research Leaders
- International Co-Mentored PhD (40)
- WT/ DBT Fellowships (11)
- PHRI-SERB Fellowships (36)
- INSPIRE Fellowships (6)
- International Fellowships (60)

The metrics: Grants
- Competitive International Grants and National Funding
- INR 1,067 Crores Received Till March 2017

Publications in Peer Reviewed Journals

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<tr>
<th></th>
<th>2008-18</th>
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<td>Number</td>
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<tr>
<td>Impact Factor</td>
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Research at PHFI: What others say?

BCG Review: “Citations / papers are better than best-in-class institutes as well; 29.8 for PHFI vs. 10.63 for Johns Hopkins School of Public Health”

PHFI is a fast growing powerhouse for research and teaching on NCDs

Relevance of the Research to National Priorities and Global Public Health context

Research at PHFI aims to be of direct relevance to the needs of the health systems, policies and programmes in India. It covers all thematic areas of public health research, namely epidemiology, determinants of health, health system and policy as well as the major causes of disease burden in India. These areas have been identified based on the health priorities identified by the National Health Mission of India, the Millennium Development Goals and the UN Sustainable Development Goals. In addition to the existing public health issues such as maternal and child health, infectious diseases, health system strengthening, emerging issues such as non-communicable diseases (including mental health), universal health coverage and environmental health are also addressed by PHFI.

Inputs and Processes in Conducting Research at PHFI

Research Governance and Management Mechanisms: PHFI has a strong research governance mechanism that has evolved over the last 5 years. An interdisciplinary team of grants administration under the leadership of Vice President (Research and Policy) is responsible for all the activities related to dissemination of funding opportunities, pre-grant support to researchers and post-grant administration and reports to the Research Management Committee (RMC) comprising of senior members of PHFI. The RMC reports annually to the Research Advisory Committee (RAC), which, in turn, provides strategic directions that are then presented to the Governing Body by the President.

Research Advisory Council (RAC): PHFI’s Research Advisory Council advises on the broader research agenda and sets the standards for high quality and relevant research. Since its inception, the council has met annually to review the progress of the research and make recommendations on future strategy.

Research Management Committee (RMC): The internal RMC, constituted in 2014, functions as an enabling and coordinating forum for research across PHFI. It oversees, coordinates and enables adoption of research policies, processes, systems and tools to ensure quality, delivery and compliance. It fosters, research collaboration and coordination across PHFI, provides guidance on research to action including avenues for dissemination and translation to policy, advises on technology development activities, scaling up, transfer and commercialization. It also guides in developing research talent base, related mentoring and evaluation processes and building a strong knowledge management system (resources, database etc.) to support the research efforts. The members are nominated by the President and the committee is Chaired by the Vice President-Research & Policy. It also meets regularly with the Academic Management Committee (AMC) to ensure coherence and coordination between teaching, research and implementation activities.
**Institutional Ethics Committee (IEC):** PHFI’s central IEC operates from its Gurugram office and reviews all research proposals from PHFI Central staff. As recommended by the ICMR guidelines, the basic responsibility of the IEC is, “to ensure a competent review of all ethical aspects of the project proposals received by it in an objective manner”. PHFI lays stress on building and maintaining a strong culture of ethics in the organisation. To this end, training workshops which cover both the principles and process of ethics approval at PHFI are conducted regularly and attended by all.

**Research Administration:** Research management at PHFI includes several aspects of grants management. These include identifying and disseminating potential grant opportunities to researchers at PHFI, pre-grant award assistance, maintaining an inventory of grants, post award coordination such as ensuring adherence to regulatory requirements, support in financial management and record keeping in a standardized fashion. A new online system of keeping track of researcher time billed to projects will be introduced in a few months. This will ensure better compliance with international standards as expected by the national and international funders. The Research administration team also fosters and facilitates collaborations both within and outside PHFI. A Grants Coordinator and a Project Development Coordinator facilitates and expedite the research proposal submission process and explore new opportunities for funding. A Database Manager maintains the grants database and research output database.

**Research Symposium:** PHFI organises an annual research symposium every year, starting from March 2011 that brings all research staff, faculty and invited international experts together. These gatherings provide a platform for researchers to share their research findings, network and discuss opportunities for collaboration and, debate on research priorities at an institutional level. This annual congregation also provides an opportunity to hold ethics training and skill-enhancing workshops for the researchers.

**Research Seminars:** PHFI conducts regular Thursday Research Seminars (TRS) where leading national and international scholars and research scientists present their work. These hour long seminars are broadcasted through the WizIQ platform to facilitate access by other IIPHs and individuals involved in fieldwork. Additionally, seminar series are held by the IIPHs and Centres to enable their faculty to present ongoing research or topics relevant to their programmes. The seminars aim not only to build capacity in the institution, but also to encourage internal and external collaborations.
Research Updates Newsletter: A monthly Research Updates Newsletter was started in January 2012 to document and share information on current projects, publications, seminars and grants received by PHFI researchers and to improve research communication within PHFI and the IIPHs.

Central Research Data Repository: PHFI has recently initiated the establishment of the Central Research Data Repository to provide a centralized platform to enable greater access to data generated by PHFI researchers to PHFI users and other researchers across the globe. When functional, it will have a centralized document management system and access to all published work and data that will be linked and archived.

Other Research Facilities

Biochemistry and Genetics Lab: PHFI’s Biochemistry and Genetics Laboratory (BGL) is one of the best-equipped laboratories among non-profit organizations of India. It has facilities for sample collection, DNA and RNA isolation from various biological samples (blood, saliva, dry blood spots, etc.), quantification, systemic storage and high-throughput biochemistry data generation for public health researchers. Successful standardization of extracting high-quality DNA from diverse biological samples including saliva and dry blood spots, which are sent to a collaborating facility for high-throughput genomics and epigenomics–has facilitated low-cost public health research. Laboratory staff in the genetics laboratory have the expertise of generating high-quality data on high-throughput platforms such as Illumina and Sequenom, based on initial training and on-going collaborations with PHFI partner institutes, such as the London School of Hygiene and Tropical Medicine (LSHTM), the University of Bristol and Newcastle University.

Computing Facilities: PHFI’s IT Infrastructure is enabled with latest technologies. Each office has an independent Internet Leased Line (1:1) with adequate Internet bandwidth being distributed to each computing device. Local Area Networks (LANs) are secured by UTM (Unified Threat Management). All the offices are interconnected via Multiprotocol Label Switching (MPLS) sharing/accessing resources and to connect via Video Conferencing. Druva Insync is used to take backup of client machine. With effect from October 2016, we are implementing a Centralised Research Data Repository which will archive all the PHFI project related data and metadata with restricted access as per the Data sharing policy of PHFI. WizIQ Portal is a platform for live real time dissemination of teaching and seminars and is also used for live streaming of events. PHFI Vibes is an intranet portal initiated in 2016 with the goal to connect employees, to enhance sharing of ideas and function as a one-stop site for disseminating internal institutional policies, procedures and guidelines.

Library Facilities: PHFI has a central library with more than 4000 printed books and 450 educational CDs, reports and manuals from diverse disciplines. Apart from this, e-resources are available at the library and include an Online Public Access Catalogue (OPAC) which is an e-catalogue database of library resources through the Koha library management system. All library resources are catalogued in MARC 21 format in Koha. Access to an institutional digital repository is available through a platform maintained by ‘D-space’, an open source software. This Digital Resource Centre is updated regularly with research publications, full text articles and student theses. We are following Dublin Core Metadata Standards to provide metadata for digital resources, available in D-space. PHFI is a member of DELNET (Developing Library Network) which provides the delivery of physical documents and photocopies/soft copies of journal articles.

Going forward we wish to enhance the ecosystem of research at PHFI that would create meaningful impact in the health space.
Overview of Major Thematic Research Areas at PHFI

Universal Health Coverage (UHC)

The problem

Given India’s high burden of diseases and the real possibility of individuals and families being pushed into poverty due to illnesses, universal access to quality healthcare services is a necessity. The existing access to and delivery of healthcare services in India, is hampered by lack of availability of services, variation in quality of care delivery and exorbitant cost for a large majority of the population.

What are we doing?

PHFI is working in Karnataka and Kerala to provide technical support to operationalize UHC pilot activities. The work is aimed at undertaking in-depth analysis of existing data and operational research, while developing a system of decision support for policymakers to translate research to knowledge. Ultimately, the project aims to develop a roadmap for scaling up this work. PHFI is also engaged in raising awareness and advocacy around UHC and primary healthcare, capacity building in the area of health financing, and highlighting policy issues that must be addressed for successful implementation of UHC.

Impact

PHFI's work is enabling:

1. Rollout of Comprehensive Primary Health Care (CPHC) through Health and Wellness Centres in Karnataka.
2. Facilitating service delivery improvement in Kerala, by using robust performance measurement indicators for public facilities at all levels of care.

Health Technologies

The current health system in India has several challenges. These include fragmentation of health care delivery, insufficient human resources particularly primary care physicians, long waiting time, visits to multiple locations (for example laboratory investigation may be at a different place), inefficient use of information, and unaffordable costs of care.

The issues highlighted above have serious implications in terms of access and timely delivery of health services, early diagnosis and prevention, and management of diseases, especially for underserved populations.

PHFI has done extensive work in developing affordable health care technologies and has a conception to end cycle. Our researchers conceive ideas that are of immediate importance to public health, evaluate them through large pilot studies and then scale them up through a wide range of research methods and implementation science. An example of a conceptual design is the "2DREAM – Drone based medical logistics system". The prototype has been developed and is under evaluation. When fully functional this can be used during disaster (such as floods) to deliver drugs and health care related products rapidly to the affected population.
We describe below three exemplars of affordable technology from conception to scale up.

1. Conception and pre-clinical evaluation: Image analysis by Computer aided Diagnostic tool

**Cancer – Computer aided diagnostic tool (CADT)**

**The problem**

Screening and early detection of oral pre-cancer and cancer by visual examination of the oral cavity is currently the mandate in National programme for Prevention and Control of Cancer. However, there is uncertainty in clinical triage and referral of abnormal results. As highlighted in the recent World Oral Cancer Congress (May 2017, India), the accuracy, reliability and cost of currently available adjunct tools to help clinical diagnosis and referral pathways are highly variable, and often requires complex expert evaluation.

**What are we doing?**

PHFI’s work in cancer spans four broad themes-descriptive burden assessment, biological research, qualitative methods and implementation science, and capacity building. The work in oral cancer is aimed at developing and testing a computer-aided diagnostic tool (CADT) to help in clinical diagnosis and subsequent referral pathways of oral pre-cancer and cancer lesions. CADT classifies suspected oral lesions into Class-1: healthy-benign; Class -2: Pre-cancer; Class-3: Cancer.

**Impact**

CADT could impact diagnosis, patient survival, lifestyle practices (e.g., tobacco cessation), health service provider practices, care linkages, healthcare costs as well as patients’ quality of life. Validated CADT could be upgraded into a mobile-application diagnostic tool (MADT) and integrated into the National programme for screening and early detection of oral cancer.
2. An example of a technology where evaluation is complete and refinement is underway

Swasthya Sahayak: Technology to improve access and save time of patients.

The “Swasthya Sahayak”, is a point of care Bluetooth enabled device, that integrates multiple diagnostics, and enables various interventions. It is the successor and improved version of Swasthya Slate. Swasthya Sahayak will be ready for deployment by December 2018. This device allows a patient-centred approach, which when combined with health systems strengthening, can offer personalized care in an affordable and sustainable manner. Swasthya Sahayak can enable patient registration with ease and also allows on-the-spot digitization of the patient record. It also enables multiple diagnostic tests using a single device. It provides instant results and instant records for action and facilitates offline/online operations and doctor-on-call services. In addition, as the data is being sent in real-time, it allows for functionality beyond simple reporting. It facilitates surveillance and predictive analysis, and contains decision support tools to enable users to deliver quality recommendations for achieving better health. Additionally, the Health Informatics Rapid Prototyping and Innovative Design Lab (HI-RaPID-Lab) at IIPH Hyderabad is successfully developing artificial intelligence, augmented reality, computer vision and geographical web-enabled health and social care services with funding from national and international grants. PHFI has further developed a number of digital health tools in the form of mobile health apps and analytical tools to improve patient health outcomes.
3. An example of technology that has been scaled up: Technology Enabled Solutions for NCD Control

The problem

India is currently going through an epidemiological transition, with increasing burden of non-communicable diseases. As such, there is a need for efficient technology-enabled solutions to help manage and contain progression of chronic diseases.

The consequences

The consequences of the growing incidence of NCDs in India, are significant. A WHO report in 2014 stated that NCDs contributed to 5.87 million deaths that accounted for 60% of all deaths in the country. Further, India shares more than two-third of the total deaths due to NCDs in the South-East Asia Region (SEAR) of WHO.

What are we doing?

PHFI, along with Centre for Chronic Disease Control (CCDC) and All India Institute of Medical Sciences (AIIMS), New Delhi has developed several technology-enabled interventions for improving quality of non-communicable disease (NCD) care in varied settings in primary care. mPower Heart mHealth System is one such innovation that features electronic clinical decision support system (DSS) for promoting evidence-based clinical practices and efficient follow-up care for NCDs. Currently fully functional for hypertension and diabetes, this platform is being extended to COPD, Chronic Kidney disease, common problems such as arthritis, and antenatal care related to gestational diabetes and pregnancy induced hypertension.

Individuals/community

This innovation has been translated to strengthen the implementation of the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular diseases and Stroke (NPCDCS) in the states of Tripura and Mizoram since May 2017. The mPower Heart mHealth System is being used for treating hypertension, diabetes and dyslipidemia patients in 56 government health facilities that cater to diverse population groups in the rural, urban, and hilly terrains in these states.

Impact

So far, around 100,000 people have benefited from the technology enabled NCD care from these states. Learning from the experience of these northeastern states, the Government of India is integrating the mPower Heart Clinical Decision Support module into the Electronic Health Record Platform which is being rolled out in the public health system. Similar programmes for South East Asian countries for facilitating WHO -PEN package implementation have been developed by us and piloted in Maldives.
Overall Impact of Affordable Health Care technologies

Technologies developed and disseminated by PHFI provide important solutions for accessing and improving quality of services. These solutions help enhance the efficiency and decrease the turnover time for the full diagnostic cycle, reduce cost of care, provide policy makers with real time data and enhance quality of care.
Environmental Health

The problem

India faces high burden of diseases due to lack of environmental awareness and degradation with issues like air pollution, access to clean water, and occupational exposures feature among the top ten risks to public health. Exposures to environmental pollution remain a major source of health risk throughout the world, though risks are generally higher in developing countries like India, where poverty, lack of infrastructure, and weak environmental legislation combine to cause high pollution levels. A significant proportion of the environmental disease burden is attributable to risks arising from poor ambient and indoor air quality, unsafe water, poor sanitation and hygiene, exposure to toxic chemicals, and climate change.

What are we doing

Air Pollution and Health Geohealth Hub Research and Capacity Building Programme (GeoHealth): The purpose of the GEOHealth hub is to advance the science of air pollution and cardiometabolic diseases through air pollution modelling and association with cardiometabolic risk factor data from a cohort in Delhi and Chennai. The project also aims to train a cadre of environmental health researchers through short, medium and long-term training with Harvard School of Public Health; over 250 beneficiaries have been trained to date.
Assessment of Environmental Health Impacts in Industrial Clusters Across India (HIA Study): Health Care Without Harm in association with Public Health Foundation of India, National Institute of Epidemiology – Chennai, Post Graduate Institute of Medical Education Research – Chandigarh, Kodagu Institute of Medical Sciences, Karnataka and State Health Resource Centre, Chhattisgarh is conducting four rapid health impact assessment studies in the industrial clusters of Ennore, Tamil Nadu; Ropar, Punjab; Udupi, Karnataka; and Korba, Chhattisgarh.

Promoting Ecologically Sustainable Health Care Practices and Advocates for Environmental Health and Justice: The project aims to address gaps in health sector capacity, communications, engagement and policy using a multi-faceted approach to strengthen India’s health sector in addressing air pollution

H.E.L.P.: Public Health Foundation of India (PHFI) and Centre for Chronic Disease Control (CCDC) in partnership with Health Care Without Harm (HCWH) established Health and Environment Leadership Platform (H.E.L.P.) for health sector leadership on energy, water, waste, chemicals and other similar issues through the adoption of sound and sustainable practices can show the way forward in India.

Sustainable Health in Procurement Project (SHiPP): SHiPP aims to promote sustainable procurement in the health sector through the reduction of toxicity of chemicals and materials in health products, the decrease of greenhouse gases in the supply chain and the conservation of resources.

Air Pollution Monitoring Network in Hospitals: CPCB recognises 94 cities as non-attainment areas for particulate pollution. Absence of PM2.5 monitoring can be noted in more than 60 cities from the list. The focus of this initiative is to strengthen Hospital based Air Pollution Monitoring.

Impact

The Centre is committed to establishing a critical mass of environmental health researchers and policymakers in India through its capacity building initiatives. A number of activities are also organised regularly to raise public awareness on environmental risk factors including air pollution and WASH through activities with civil society groups, NGOs and schools across the country. As India is the fifth-largest producer of e-waste in the world, the Centre as a technical partner introduced health impacts of informal e-waste recycling into environment modules prepared by Karo Sambhav with HRIDAY as implementation partner for school implementation. The Centre has also introduced an environmental health module for MPH Students at IIPH-Delhi. The Centre is also working with urban slum communities of Delhi such as Nehru Nagar through partnerships with local NGOs. The Centre will also extend continued engagement with schools to raise awareness on air pollution.

The team is also deeply engaged with the policy landscape on environmental health through membership of various government committees including those of the Ministry of Health and Family Welfare, Ministry of Environment and Forests, and National Disaster Management Agency at the central level. We work with state governments such as the governments of Gujarat, Maharashtra, Karnataka, Odisha and Delhi.
Heat Action Plan

The problem
Climate change is leading to variations in weather patterns and an apparent increase in extreme weather events, including heat-waves. Heat related morbidity and mortality can be due to either direct or indirect effects. Direct effects include a spectrum of heat illnesses ranging from heat exhaustion to heat stroke while the indirect effects occur when heat exposure stresses underlying physiological systems and results in specific manifestations such as renal insufficiency, acute cerebrovascular disease, and exacerbations of pulmonary disease.

Consequence
In May 2010, heat wave was associated with significant excess all-cause mortality in Ahmedabad resulting to 4,462 all-cause deaths. Similarly, in Odisha, heat wave takes a large number of lives each year. The death-toll owing to heat stress is likely to double in less than 20 years.

What are we doing
The regional centres of Indian Institute of Health (IIPH) and PHFI has developed a multipronged strategy and recommended a portfolio of preventive action for the city of Ahmedabad and state of Odisha including meteorological early warning systems, timely public and medical advice, improvements to housing and urban planning and readiness of health care and social systems. Both the Heat Action Plans have been adopted by the corresponding implementing agencies of the state governments and the centre has continued to remain as a knowledge and strategic partner.
**Maternal and Child Health**

**The problem**

Healthy women and children are the cornerstone of public health and key to progress in every aspect of human development. India, still has a comparatively high maternal mortality rate, with over 100,000 women dying in childbirth every year. India also struggles with child mortality: the country represents about one quarter of the global burden of infant and under five deaths. Poor access to health and nutrition services for mothers and children is at the root of these high mortality rates. One out of every five children under the age of 5 years is wasted and 43% are underweight for their age, outcomes which are closely related to the nutritional status of their mothers.

**Impact**

The heat action plan reaches out to the population at large and hence by leveraging community participation and proposing actionable strategies the project has found incredible resonance among the beneficiaries especially high risk groups.

The heat action plans are framed as implementable policies and therefore generated interests among other cities that experience extreme events of heat. The scalability of the framework is well endorsed among various stakeholder categories.

**What are we doing**

PHFI is undertaking knowledge generation and advocacy efforts at various levels to impact the lives of women and children in India. Some of the recent research activities include:

- Generating reliable evidence on the efficacy and safety of IV iron sucrose in the treatment of moderate and severe iron deficiency anaemia in pregnant women in India in improving maternal and foetal outcomes.
- Providing evidence for effectiveness of quality of care in labour rooms.
- Assess the effect of maternal DHA (a fatty acid useful for the development of eye and brain) supplementation and offspring neurodevelopment.
- Examine and address the determinants of adverse sex ratios in Nagaland, Meghalaya and Jammu and Kashmir.

**Impact**

- Anemia Mukt Bharat is high on the Government agenda. The iron sucrose study findings are being considered to draft the National guidelines for management of severe anemia in pregnancy.
- The states of Andhra Pradesh and Rajasthan have positively received the findings of the study assessing quality of care in labour rooms and are revising their policy to develop more effective quality control strategies for maternal and child health care.
Social Determinants of Health

The problem

The modalities of access, coverage, relevance and uptake of health-related policies and services pertain to various dimensions of social equity. The complexity inherent to the concept of equity necessitates the use of theoretical approaches and pragmatic frameworks aimed at unpacking the contours of equity or the lack thereof. Demonstration of human-centered research is also required to exemplify its use and relevance.

What are we doing

Recognizing the profound gaps PHFI facilitates the development of a unique system for India, through a rigorous scientific effort aimed at a high-quality and policy-relevant synthesis of the available evidence on social determinants of health through original advanced analyses. This effort integrates diverse evidence to identify the best ways to use the available evidence on social determinants of health and identify the major gaps to inform further development of research and policy to effectively reduce health inequities in India. Through close consultation with key stakeholders, a national health equity surveillance system is being developed and through institutional efforts hubs are being created to provide information to policymakers and facilitate impact evaluations.

As a presentation of PHFI’s attempt to deploy anthropocentric research work, a noteworthy dive has been made to investigate larger issues pertaining to quality of care and effectiveness, laying importance to antenatal risk and ‘respectful maternal care’ from the vantage point of inequality. This work is subsumed under the government of Karnataka’s efforts at furthering the improvement of reproductive health in the state.

Impact

Inequity in itself becomes a signifier for vulnerability. The work within this fold is aimed at disempowered and underserved communities. Both the health surveillance network and the maternal care initiatives are aimed towards strengthening of relevant policies and their implementation.

Suicide and Injuries

The problem

India accounts for a large proportion of all suicide deaths globally. As part of the Global Burden of Disease Study, suicide death rate was estimated for both sexes in each state of India from 1990 to 2016. The number of suicide deaths in India increased by 40% between 1990 and 2016. With an estimated 230,000 suicides in 2016, it was the 9th leading cause of death. Suicide ranked first as the cause of death in the 15-39 years’ age group, and even higher suicide death rates were observed in the elderly in 2016 in India. Large differences in suicide deaths between male and female and different state were documented - with southern Indian states having higher rates. If the current trends continue, India is unlikely to reach the SDG 2030 target of suicide death reduction. As India’s contribution to the global suicide deaths is disproportionally high and increasing, the current lack of a suicide prevention strategy may become crucial.

What are we doing

A systematic understanding of the suicide mortality trends over time has been made at the subnational level for India’s 1.3 billion people. Thus, we aimed to reported, time trends of suicide deaths and the heterogeneity in its distribution between the states of India from 1990 to 2016. India’s proportional contribution to global suicide deaths is high and increasing. Death rate due to suicide in India is higher than expected for its Socio-
Demographic Index level, especially for women, with substantial variations in the magnitude and men-to-women ratio between the states.

**Impact**

A suicide prevention strategy that takes into account these variations to address this major public health problem is currently under consideration.

**State Level Disease Burden Initiative**

**The problem**

With almost one-fifth of the world’s population living in India, the health status and the drivers of health loss are expected to vary between different parts of the country and between the states. Accordingly, effective efforts to improve population health in each state require systematic knowledge of the local health status and trends. While state-level trends for some important health indicators have been available in India, a comprehensive assessment of the diseases causing the most premature deaths and disability in each state, the risk factors responsible for this burden, and their time trends have not been available in a single standardized framework.

**What are we doing**

The India State-Level Disease Burden Initiative was launched in 2015 as a collaborative effort between the Indian Council of Medical Research, Public Health Foundation of India, Institute for Health Metrics and Evaluation - USA, and experts and stakeholders from over 100 institutions across India, with the support of the Ministry of Health and Family Welfare, Government of India. The work of this Initiative is overseen by an Advisory Board.
consisting of eminent policymakers and involves extensive engagement of 14 domain expert groups with the estimation process. The Health Ministry Screening Committee at the Indian Council of Medical Research has approved the work of the India State-Level Disease Burden Initiative. The goal of this Initiative is to produce the best possible state-level disease burden and risk factors trends, utilizing all identifiable epidemiological data from India as part of the Global Burden of Disease study.

**Impact**

These findings have been received very well by policy makers, with the Director-General of the Indian Council of Medical Research, the Health Lead at NITI Aayog, and the Health Minister of India commenting that these findings will be very useful for the state-specific planning of Ayushman Bharat—a seminal and newly-constituted initiative of the government to provide health insurance and strengthen primary health care.

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**Disabilities**

**The problem**

India has some 40 to 80 million persons with disability. Low literacy, dearth of jobs and social stigma are making disabled people among the most excluded groups in India. In the next few years, the number of disabled people in India is expected to rise sharply as age related disabilities are likely to grow and traffic accidents are also likely to increase. This is borne out by the fact that internationally, the highest reported disability rates are in OECD countries.

**What are we doing**

To promote disability inclusive development the IIPH Hyderabad centre has undertaken the task of addressing a broad range of disabilities through innovative public health intervention(s) through a multi-sectoral approach. Some of the actions include the introduction of a short course for district medical officers and health personnel on Disability and Health in the current context and health scenario. This would enhance the understanding of the government health professionals working at the grass root level on disability and health subsequently empowering them to design and include programmes for disability management within their district health action plan. We are also harnessing Big Data Research for a web-based disability data analysis and report generating application for disability surveys aiding a macro level view into the magnitude of disability in India. A manual on disability for planning and management of disability-related programmes has also been developed enabling health care professional at the last mile to access and provide suitable guidance to the challenged and their families during their continuum of care.

**Impact**

Although the endpoint beneficiaries include people with disability, the strategies are also targeting the empowerment of other stakeholders working towards the management and implementation of programmes catering to the disability issue in India. These efforts are aligned with the objectives of the Rights to Persons with Disabilities act (RPD 2016) and further the efforts of the National programme for prevention and control of Cancer Cardio vascular Diseases Diabetes and Stroke (NPCDCS) as well as the Rashtriya Bal Swasthya Karyakram (RBSK).
One Health

The problem

One Health approaches have widely been considered to provide the most comprehensive and effective modes of managing the emerging infectious disease threats. There have been multiple challenges in implementing one health approaches due to limited research and programmatic evidence available.

What are we doing

PHFI is undertaking research activities on Peri-Urban Human-Animal-Environment interface to create and maintain sustainable multidisciplinary and multi-actor partnerships for policy-relevant research aiming at decreasing health and environmental problems from livestock agriculture and overcrowded conditions in peri-urban ecosystems.

Of the two major research activities - the first focusses on the zoonotic potential of bovine tuberculosis and the second on antibiotic use in small holder dairy farms as risky and unsustainable means of increasing food output. Each of the studies will culminate into proofs of concept of changed incentives and better practices.

Impact

The initiative will establish a policy-relevant research programme and generate evidence to influence the coordination of policy and practices that supports safe food production, healthy livestock and improved public health. These initial research projects in the peri-urban ecosystem will provide a basis for expanding the work of the initiative to identify and address other key development and public health issues in this setting.

Oral Health

The problem

Oral Health is fundamental to overall health, well-being and quality of life. Maintenance of good oral health is an important public health goal because oral diseases not only impact systemic health and quality of life but are also a significant cause of mortality. Oral health shares common biological, behavioural and psycho-social risk factors with various other NCDs. Out of pocket expenditure for dental treatment is a major drain on the limited personal resources of the most vulnerable and increases risks of poverty and further illness.

What are we doing?

Researchers at PHFI are working to prevent and control oral diseases and conditions by building the knowledge, tools, and networks that promote healthy behaviours and effective public health practices and programmes. There are three key projects which are currently being undertaken:

- Understanding the socioeconomic inequalities in oral health of adolescents living in Delhi - National Capital Region and determining the factors influencing these inequalities through a primary field base clinical examination and behavioural and social support assessment.

- Investigating the role of oral bacteria causing gums related diseases for oral leukoplakia risk. Comparing the levels of selected pathogenic bacteria in oral rinse samples of participants with prevalent oral leukoplakia to those in age, sex matched control participants and exploring whether the associations can be fully or partly explained by clinical condition of the gums.
Nesting a cross-sectional study within the second Cardiometabolic Risk Reduction in South Asia Surveillance Study to assess the prevalence of common oral diseases and their association with diabetes in more than 2000 adults living in Delhi.

**Impact**

The findings from these various oral health studies were taken up during discussions on framing of the National Oral Health Policy and now the proposed policy has a significant component stressing the importance of primordial and primary prevention of oral diseases. PHFI is now represented on the drafting group for National Oral Health Policy.
Diabetes and Hypertension

The problem
Diabetes and hypertension are increasing rapidly in India. However, despite availability of proven and effective prevention strategies and treatments, diabetes as well as hypertension detection and control rates are abysmally low with blood pressure control among those with diabetes being even more sub-optimal. There is a great potential and opportunity to reduce the rising burden of diabetes and hypertension as well as the associated vascular risk through concomitantly improving their detection, prevention and control.

What are we doing

UDAY: A Comprehensive Diabetes Prevention and Management Programme in India
The project focuses on home-based screening programme using lay but trained technologically enabled community health workers, along with linkage of screened individuals to the healthcare system. Under this project, a multi-component, multi-level, comprehensive intervention programme is implemented to improve the prevention, detection and management of diabetes and hypertension.

CARRS
This is a community-based surveillance study that started in 2010-2011. The participants are being followed annually for detection of incidence of cardiometabolic diseases. A second wave of data collection called CARRS-2 began in 2015-2016. Both CARRS-1 and CARRS-2 have collected a rich repository of bio-specimens including blood, urine, and DNA samples. This study will help us understand the mechanisms of these diseases, particularly the reasons for the high vulnerability of Indians to CVD and diabetes.
Case Study: UDAYS

Ramesh, a 43 year old busy dairy farmer residing in one of the villages covered by the UDAYS project in Sonipat was detected to have high blood glucose during the screening in March 2016. Ramesh was also having boils on his thighs. He was informed about his blood glucose status and was advised to consult the nearest public health facility for further evaluation. He consulted a physician in a nearby town who diagnosed him with type 2 diabetes and cellulitis. He was treated with anti-diabetic drugs and antibiotics by the doctor and was advised to take anti-diabetic medicines regularly. Ramesh took medicines for a while and then stopped, once his skin condition subsided and his blood glucose was found to be normal.

In January 2017, during one of the follow-up visits by the health workers, it was observed that Ramesh was not taking his anti-diabetic medication. He told the health workers that he remains very busy in his work and since his blood glucose was normal last time he had checked, he stopped taking the medication. Health workers checked his blood glucose again with a glucometer and found that it was very high. He was advised by the health workers to consult his doctor as soon as possible. This time health workers also came to know that Ramesh was consuming almost a bottle of liquor every day. Health workers told him that if he doesn’t give up drinking and doesn’t take the modification he might get complications like a heart attack and stroke. He was also advised to engage in some daily physical activity. This time Ramesh heeded to the advice by our health workers. He has been regularly going to the doctor and has given up drinking. Ramesh also regularly checks blood glucose levels, takes the medicines and is leading a healthy life with his family.

Case Study: CARRS

“I am 50 years old and I am a priest in a temple. I am a part of CARRS from 2012. Like every year, the team visited me this year also and recruited me in another study, aimed to estimate the burden of Non-alcoholic fatty liver disease (NAFLD). I said, “I am absolutely fine, I don’t drink, smoke and also don’t eat meat. I am a pure vegetarian and I don’t have any problem”. When the team explained to me more about the study, I agreed to participate in the study. I was taken to the All India Institute of Medical Sciences (AIIMS) and routine blood tests, ultrasound and fibroscan of the liver were done. After my ultrasound, I came to know that I have fatty liver disease. The team informed me and told me that I should make some lifestyle modifications - be more active, eat less oil/fat, eat moderate amount of salt, eat more fruits and vegetables. They helped me in getting the consultation from the doctor at AIIMS. The doctor told me, if this condition had remained undetected then it would have caused more problems to me in the future. After hearing this, I thanked the team as they are the ones who asked me to undergo the check-up. I will always be thankful to them and because of them my life is healthy and joyful.”
Pregnancy, Gestational Diabetes and Air Pollution

The problem

Pregnant women and children are vulnerable as they experience multiple and complex health disadvantages. With India in the midst of a major epidemiological transition the occurrence of gestational diabetes has increased manifold. Most women with gestational diabetes mellitus (GDM) in India are undiagnosed and/or inadequately managed due to a lack of knowledge and skills about GDM on the part of both providers and patients. It is important to manage GDM because children born to mothers with GDM have high birth complications as well as are prone to several adult chronic diseases.

What are we doing

We are currently undertaking the following projects to assess and find solutions to address health vulnerabilities of pregnancy and early life.

- A cohort study in the public health facilities in Bangalore, India to prospectively assess the effects of glucose levels in pregnancy on the risk of adverse infant outcomes, especially in predicting the possible risk markers of later chronic diseases.
- Develop and evaluate a package of three interconnected educational/behavioural interventions for improving detection and management of GDM in the short-term, and over a period of time both within the public and growing private healthcare sectors.

- Estimate the impact of one full meal in improving the weight gain and mean haemoglobin percentage of pregnant, lactating mothers and new born babies.

- Assess the association between air pollution and low birth weight of new born babies in the slums of Bengaluru.

**Impact**

Positioning the issues of maternal glycemic control and weight management (both underweight and obesity) to the core of policy agenda has the potential to prevent and postpone the development of T2DM, limit the adverse pregnancy outcomes and reduce stunting and wasting in infants.
Health System Support
PHFI Central is helping build institutional and health systems capacity in India, both at national and sub-national levels. Our core focus is on strengthening primary health care and district health management to improve the quality, accessibility and equity of health services towards lowering the disease burden and providing effective healthcare. In the reporting period, PHFI provided responsive technical support to several state governments including Governments of Uttar Pradesh, Odisha and Karnataka to shape health policies and strengthen human resource capacities.

Swasth Uttar Purv: Healthy North East: 
Strengthening Human Resource and Systems Capacity for Public Health in the North Eastern Region

The goal of this effort is to strengthen health systems and human resources capacity of in-service government officials to implement key health programmes on the ground by building knowledge and understanding on Sustainable Development Goals (SGDs) as applicable to health. Short-term capacity building initiatives covered topics such as monitoring and evaluation, programme management and implementation of key health programmes. Long-term academic programmes include management of public health programmes, health financing, health policy and health promotion. In addition, primary care physicians will be trained in the management chronic conditions and injuries. These efforts are complemented by conducting impact assessments of innovations for improving outreach and effectiveness of programmes and organising awareness building activities, policy dialogues around emergent health priorities of the state in the region. Further, to promote a healthier multidimensional approach to health, the concept of School Health is introduced and training is being provided to government school teachers. To enable improved coverage of health issues, a series of workshops titled “Media for Change” are being rolled out to provide orientation to national/vernacular journalists on a range of health issues and climate change. This effort is implemented across eight north eastern states including Arunachal Pradesh, Assam, Mizoram, Meghalaya, Manipur, Nagaland, Sikkim and Tripura.

Odisha Health Policy

A policy dialogue on developing Odisha Health Policy was initiated in February 2017 by the Indian Institute of Public Health, Bhubaneswar (IIPH-B), with the Government of Odisha (GoO) and key development partners in the state. IIPHB developed draft health policy through a review of evidence and a series of consultations and workshops with key actors. The process of policy formulation considered health sector from three different levels of continuum of care viz. primary, secondary and tertiary health care. Three working groups were constituted, through a Government Order (GO), to deliberate on each level of care. These groups were co-led by the state government and IIPH-B. In addition, an Oversight Committee was formed by the Government to review the state policy and provide necessary inputs. IIPHB has submitted the finalised draft-health policy to the Government after several rounds of consultations and review.
Karnataka Integrated Health Policy

In May 2016, Karnataka Knowledge Commission, chaired by Dr Kasturirangan, was tasked with developing Karnataka Integrated Health Policy by the Government of Karnataka with an intent to integrate all the technological and scientific developments since the last health policy announcement in 2003-04. The government’s focus in this phase was to improve patient grievance redressal mechanism so that services could be easily accessed and utilised by patients at the local levels. A Health Task Force, chaired by Dr Devi Shetty, was constituted and Professor K Srinath Reddy was invited as member of the Task Force to provide scientific guidance to this process. Two sub-committees on strengthening primary health care and human resource for health were formed with Dr Giridhar Babu and Dr Suresh Shapeti as its lead coordinators. The report was drafted by a group led by Dr Satyanarayan from IIPH Bangalore. The report was accepted by the Karnataka Knowledge Commission. Subsequently, the Government of Karnataka, by a cabinet decision has accepted and adapted it as the Karnataka Integrated Health Policy 2017. The Government of Karnataka is implementing the recommendations in a phase wise manner.

Uttar Pradesh State Health Policy

Uttar Pradesh Health Systems Strengthening Project (UPHSSP) along with seven knowledge partners was assigned the task of developing Uttar Pradesh State Health Policy (2018). PHFI was designated as the lead knowledge partner for drafting chapters on Health Care Financing, Access to Medicines, Human Resources for Health and Social Determinants of Health. Policy briefs were developed by Dr Preeti Kumar, Dr Saktivel Selvaraj and Dr Rajna Mishra from PHFI along with Ecroys (an economics research consulting organization).

The process of policy formulation involved constituting thematic groups, core-committees, sub-committees and drafting committee and finalization of terms of reference for each of the thematic groups. Consultative meetings were held with stakeholders including officials from Directorate of Health and Family Welfare, Directorate of Medical Education, State Innovations in Family Planning Service Agency, Uttar Pradesh National Health Mission, Uttar Pradesh State AIDS Control Society, representatives from medical, nursing and pharma Councils, Population Research Centre Lucknow, King George Medical University, Sanjay Gandhi Post Graduate Institute, and several other Government Departments. To inform this process, exposure visits for senior officials of NHM, DGMH and UPHSSP were organized to Kerala and Gujarat to facilitate cross learning. Regional consultations were held with CMOs, CMS, MOs and DPMs from different regions of the state and online suggestions from various district level health functionaries were solicited on key issues related to governance issues and obtaining consensuses on broad recommendations on the draft health policy. The key policy recommendations include creating a public health cadre in the State, enhancing production of clinical and allied health professionals, stepping up public health expenditure, strengthening strategic health purchasing, reforming public finance management mechanisms and improving governance and oversight of the health system.

A state level workshop, inaugurated by Shri. Siddharth Nath Singh, Honourable Minister of Medical and Health, Government of Uttar Pradesh (GoUP), was organized in January, 2018 to discuss the draft policy. Key participants included Professor Vinod Paul, Member NITI Ayog, Professor Rajendra Pratap Gupta, Advisor, Union Minister of Health and Family Welfare, Mr Henk Bekedam, Representative WHO-India, representatives from the World Bank, the Bill and Melinda Gates Foundation and Country Directors of national and international organizations. The document
was acknowledged by the speakers as a well drafted document with implementable recommendations that could also serve as a template for other states. The comments and suggestions shared by the experts and participants were incorporated and revised draft was shared with the GoUP for cabinet approval. The primary objective of the policy is to provide universal coverage, comprehensive care involving preventive, promotive, curative, rehabilitative and palliative care. Recognizing PHFI’s meaningful contribution to the state health policy, PHFI has been designated by GoUP to draft a chapter on health for the Sustainable Development Report for Uttar Pradesh.

### Project Ujjwal

PHFI, in partnership with National Health Mission (NHM) Odisha, has been implementing an effort that aims to strengthen family planning related services in Kandhamal and Koraput districts of Odisha. Interventions are delivered in all the public health facilities of the districts where family planning services are provided. The project aims to standardize service delivery processes in these facilities to improve the quality of care. A key component of the project includes delivery of high-level Capacity Building Programme on quality of care for the health functionaries including doctors of the facilities under intervention. The programme aspires to raise the standards of labour room, operation theatre and infection control practices to the level where the facilities get accreditation from MoHFW. District Hospital Kandhamal is already in the process to obtain accreditation. The processes developed in this intervention will be made available for replication to the entire state to achieve quality assurance of health services as per standards defined by MoHFW.

### HIV and AIDS Advocacy

PHFI has been contributing to the prevention and control of the HIV/AIDS since 2008 through large Technical Assistance (TA) projects.

The BMGF/PHFI Partnership for Sustained Impact (PSI), a USD 38 million project (2008 – 2017) established the National Technical Support Unit (NTSU) to guide HIV prevention programme across India.

Over five years, 2012-2017, the USAID/PHFI Impact through Prevention, Private Sector and Evidence-based Programming project implemented innovations such as District Network Model, involvement of Municipal Corporations and Panchayats in HIV programming, HIV testing through targeted intervention and co-located drop-in center. In addition, a national AIDS Helpline (1097) was established and migrant service delivery system was developed.

In 2018, NACO awarded PHFI a grant ($3.4 million for three years) to provide Technical Assistance to five states (Gujarat, Jharkhand, Rajasthan, Uttarakhand and Uttar Pradesh) through Technical Support Units (TSU).
**Technical Support to Central Government (2017-2018)**

- High Level Group on Health Sector Constituted by 15th Finance Commission: **Prof. K S Reddy**
- Scientific Advisory Committee on Non-Communicable Diseases, ICMR: **Prof. D Prabhakaran**
- Public Health Education Taskforce; MoHFW: **Prof. Sanjay Zodpey**
- India’s National Technical Advisory Group on Immunisation: **Prof. Dileep Mavalankar**
- National Taskforce on Diabetic Retinopathy: **Prof. GVS Murthy**
- NHSRC Executive Committee & Governing Board: **Dr. Lipika Nanda**
- Expert Group to Apprise 15th Finance Commission for Development in Health Sector: **Dr. Sakthivel Selvaraj**
- Internal Technical Committee for Kala Azar (NVBDCP): **Dr. Preeti Kumar**
- Working Group on Developing School Health Curriculum for AYUSHMAN BHARAT: **Dr. Monika Arora**
- Task Force on Comprehensive Primary Health Care constituted by MoHFW: **Dr. Rahul Shidhaye**
- Expert Group to Develop National Oral Health Policy: **Dr. Manu Raj Mathur**
- PHFI partnered with **NITI Aayog** to organise consultation on Health System Innovations for UHC (Bengaluru, June 11-12, 2018)

**Technical Support to State Governments**

- Technical Advisory Committee on Sustainable Development Goals -3 implementations in Karnataka
- PADMA-Punjab Alcohol and Drug the Management Programme
- Government of Maharastra and Haryana (National Tobacco Control Programme/Non Communicable Disease Prevention/ Public Health)
- Government of Maharastra (Communicable Disease and Health Service Restructuring)
- Expert Committee on Tribal Health, Government of Gujarat
- Strengthening implementation of National Health Programme
- Occupation Health in Gujarat Industries (Partnership with Gujarat State Industrial Development Corporation)
- Support for HRH strengthening –Medical Specialists under CPS and NBE (Odisha, Haryana and UP)
- Karnataka Knowledge Commission Taskforce on Health
- Technical Support for Health System strengthening in Karnataka
- Technical Support to Government of Telangana in Disability Programme
- Support to North Eastern States (DoNER Grant-Training Programmes)

**Continuing to Provide Technical Expertise to UN Agencies like WHO, UNICEF, World Bank, UNEP**
Centre for Environmental Health

The Centre for Environmental Health (CEH), launched in May 2016 by the Honorable Union Minister for Health and Family Welfare, Shri J P Nadda, is a joint initiative of PHFI and the Tata Institute of Social Sciences, Mumbai. The centre is supported by Tata Sons and Tata Consultancy Services Ltd. under the guidance of an eminent Governing Council led by Mr S Ramadorai, and comprising three members of Parliament and distinguished scientists. The core mandate CEH is to help build a critical mass of environmental health researchers and policymakers in India who would extensively study the effects of deteriorating environment on human health. Till date, CEH has trained over 250 individuals from diverse backgrounds representing over 50 institutions from India and abroad.

Community outreach efforts and workshops organized by CEH, in collaboration with civil society groups, NGOs and schools across the country, include activities to raise public awareness on environmental risk factors including air pollution and WASH. In 2017-18, awareness sessions on environmental health concerns were conducted across colleges and schools in New Delhi. Key notable efforts in the year gone by include:

Educational Programmes

CEH has introduced an environmental health module for MPH Students at IIPH-Delhi. An educational field trip was organised for the students to Ghazipur landfill, waste to energy plant and skilling centres. CEH is also in the process of planning remedial action for addressing environmental health concerns in urban slum communities of Delhi through partnerships with local NGOs.
E Waste Management/Karo Smabhav

India ranks as the fifth-largest producer of e-waste in the world. Addressing this concern, CEH has introduced an on-going initiative on e-waste management. The Centre, as a technical partner, introduced health impacts of informal e-waste recycling into the environmental health modules prepared by Karo Sambhav, a school programme implemented partnership with HRIDAY. The module is currently being implemented across various schools in Delhi. The programme enables the development of 21st century skills of collaboration, critical thinking, creativity, communication, ICT competencies and real-world problem solving, by deploying contemporary pedagogical practices. It also aims to support the Government of India’s initiatives such as ‘Swachh Bharat Abhiyan’, ‘Digital India’, and ‘Smart Cities’.

Promoting Safety and Health during Diwali

CEH has designed a communication campaign to promote celebration of Diwali with safety and responsibility through messages that ask to limit usage of firecrackers that emit enormous smoke and sound, dispose waste after celebrations and talk about preventive measures for children, elderly and people with asthma and bronchitis. Communication material including posters, a short skit and a 2-minute animation clip on air pollution awareness are being developed.
Health Promotion Division

At PHFI, we consider knowledge-sharing through focused, evidence-based, application oriented education, training and research as the ideal vehicle to address the increasing public health challenges. The Health Promotion Division at PHFI is involved in public health education programmes and initiatives, training and research in consonance with National and State Health programmes and community needs. The division catalyses direct outreach by developing and delivering health promotion programmes including the dissemination of information, and by raising the technical educational content and profile of communication and advocacy within the broader realm of public health. The Division is member of the National Technical Working Group on developing School Health Curriculum under Ayushman Bharat, formed by MoHFW in March 2018.

Project PaTHWay: PromoTing Health and Wellbeing

In collaboration with Directorate of Health Services, Maharashtra Government and Directorate of Health and Family Welfare Services, Government of Karnataka, PHFI launched a three year interventional research project that is implementing behaviour change interventions for non-communicable diseases (NCD). The intervention focuses on addressing determinants of good health and risk factors such as tobacco control, unhealthy diet, physical inactivity and alcohol use in multiple settings including 20 schools, 4 colleges and 6 workplaces. This science research project is being implemented in Pune and Bangalore by the Division in collaboration with local partners in Pune (Janaseva Foundation) and Bangalore (NIMHANS), with support from AXA Business Service Pvt.

World Heart Day (WHD, 2018)

This is an initiative of the World Heart Federation (WHF) and the world’s biggest platform for raising awareness about cardiovascular disease, including heart disease and stroke. PHFI being a member of the WHF, organised an event in Pune and Bengaluru on the theme “My Heart Your Heart campaign”. In Bengaluru, the event was organized at Government Primary School, Yelahanka and in Pune by D.Y. Patil Medical College, Hospital and Research Institute. Approximately 600 participants, including school students and teachers, students from medical and management college, faculty members, doctors, civil society representatives, staff members from PHFI, AXA, Janaseva Foundation and Directorate of Health and Family Welfare, Bengaluru took part in the event.

World No Tobacco Day (WNTD), 2018

PHFI collaborated as a technical partner with World Health Organization-Country Office for India and MoHFW to raise awareness around the theme “Tobacco and Heart Disease” by undertaking activities including development of background paper to collate recent scientific evidence demonstrating the links between the tobacco use and heart and other cardiovascular diseases. Background paper released by MOHFW in an event organized by WHO-CO and MOHFW, GOI. A policy document on “Tobacco Free India: Vision 2030” and criteria and checklist for Swachh evam Swasth Vidyalaya: Tambakoo Mukt Vidyalaya (Tobacco-free schools) were prepared. An online campaign and posts on Facebook and Twitter (opinion polls, social media messages, short videos on the theme etc.) were posted to ensure wider dissemination of messages on adverse cardiovascular outcomes of tobacco use among Indians.
**School Health component under the Swasth Uttar Purv: Healthy North East**

An evidence-based, age-appropriate, comprehensive school health education and promotion curriculum package was developed for Government school students of classes 6-8th in the age group of 10-14 years. Key topics include: Hygiene and sanitation; mental health, substance abuse, injuries and violence, non-communicable diseases, nutrition and physical activity and adolescent reproductive health and hygiene.

**Project Diabetes with Dignity**

Project Diabetes with Dignity (DWD) tested the feasibility and effectiveness of a model of enhanced diabetes care in adults through the empowerment of ASHAs, ANMs, MPWs and Medical Officers (MOs) in a rural community of Pune, Maharashtra.

The project was implemented during 2016-17 by Chellaram Diabetes Institute (CDI) in collaboration with PHFI as an evaluation partner. This effort is funded by Sanofi India Ltd. A pilot community-based quasi-experimental trial, was conducted in two Primary Health Centre (PHC) areas (Intervention area - Pandare PHC; Control area - Shirshuphal PHC) of Baramati block in Pune. Significantly lowering of mean HbA1c (sugar levels for three months) values and lowering of LDL cholesterol was observed demonstrating that such intervention in a rural Indian setting would be feasible and effective.

**PROMOting Health Literacy in School**

Project i-PROMISe is an ongoing initiative with an aim to reach school students pan-India and promote an enabling and supportive environment among children and adolescent to adopt healthy lifestyle practices.

Developed in collaboration with World India Diabetes Foundation (WIDF) the project includes a comprehensive module comprising of interactive activities and short films focusing on importance of healthy diet and being physically active. The modules were reviewed by experts group comprising of nutritionists, communication and public health expert at PHFI and Mayo Clinic. These resources were pre-tested and shown to the relevant target groups and finalized in consultation with teachers and students as beneficiaries. The project is currently being implemented in 10 schools of Delhi.
Peer Reviewed Publications
(1st April 2017 onwards)
Articles in Journals

2853 peer reviewed publications since inception with an average impact factor of 6.73


2017


Huffman MD, Kandula NR, Baldrige AS, Tsai M, Prabhakaran D, Kanaya AM. Abstract 15516: Association Between Lipoprotein(a) and Atherosclerosis: Results from the MASALA Cohort. Circulation. 2017;136:A15516-A. http://circ.ahajournals.org/content/136/Suppl_1/A15516


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**Articles accepted for publication**

Babu GR. Maternal Glucose and psychosocial environment influence birth baby’s weight in India. Nature Research. 2018;-[Accepted for publication].

Ghosh I, Tiwari PK, Mandal S, Martcheva M, Chattopadhyay J. A mathematical study to control Guinea Worm Disease: A case study on Chad. J Biol Dyn. 2018;-[Accepted for publication].

Khandelwal S, Babu GR, Kurpad AV. Nutrition Research and Policy. Nature Research. 2018;-[Accepted for publication].

Kumar A, Waila GK, Sachdeva MP, Gupta VG. Genetics of non alcoholic fatty liver disease in Asian populations. J Genet. 2018;-[Accepted for publication].


Books/ Book Chapters

2018


2017


**Conference Presentation (Oral / Poster)**

**2018**

Babu GR. Enhancing Evidence-based Health Policy for SDGs Achievement. 13th IEA SEA Meeting and International Conference on Public Health and Sustainable Development; 02nd-03rd October; 2018; Bali, Indonesia.

Bagre V, Bhalla S, Jose AP, Bagre V, Sharma A, Pandey N, Kumar H, Nair S. Nationally and Internationally Acclaimed Model for Improving Competency of Primary Care Physicians in Management of Hypertension. 27th Scientific Meeting of the International Society of Hypertension; 20th – 23rd September; 2018; Beijing, China.

Bhalla S, Jose AP, Bagre V, Sharma A, Pandey N. A collaborative model for the capacity building of healthcare professionals of the African Region in the management of hypertension and its complications. 27th Scientific Meeting of the International Society of Hypertension; 20th – 23rd September; 2018; Beijing, China.

Bhalla S, Monga D, Soni T, Kumar P, Koundal A, Deshpande S, Bhatt A, Tandon N, Prabhakaran D, Unnikrishnan AG. Need for capacity building in Thyroid sector for Primary care Physicians in India. 88th Annual Meeting of the American Thyroid Association; 3rd -7th October; 2018; Washington, DC, USA.

Bhalla S, Pushkar K, Chandwani H, Jose AP. A unique model for capacity building of primary care physicians in management of cardiovascular disease and co-morbid conditions in India. World Cardiology Congress; 05th-08th December; 2018; Dubai, United Arab Emirates.


Bhaumik S, Datta P, Arora M, Nazar GP, Munish VG, Singh PK, Tullu F. Economic contributions of the bidi manufacturing industry in India. 17th World Conference on Tobacco or Health; 07th-09th March; 2018; Cape Town, South Africa.

Deepa R, Babu GR, Agarwal J, Yamuna A, Prafulla S. Nutritional Status of pregnant women and its association with pregnancy outcomes: Results from the MAASTHI birth cohort. 7th PHFI Annual Research Symposium; 29th-30th October; 2018; New Delhi, India.


Golechha M, Jain P, A. M. Climate Change and Gender-A different Perspective from rural Rajasthan. Public Health Conference 19th January; 2018; Gandhinagar, India.

Gupta P, Mishra A, Chandwani H, Sinha S, Bhalla S, Prabhakaran D, Purandare, V., Deshpande S, Unnikrishnan AG. A Unique Education Programme on Diabetes and Cardiovascular Disease for Primary Care Physicians in India: A Support to WHO Global Action Plan. World Cardiology Congress; 05th-08th December; 2018; Dubai, United Arab Emirates.
Jamaludin M, Nazar GP, Palladino R, Tsakos G, Watt RG, Millett C. Smoke-free legislation and socioeconomic inequalities in smoking-related morbidity and mortality among adults: a systematic review. 17th World Conference on Tobacco or Health; 07th-09th March; 2018; Cape Town, South Africa.

Jarhyan P, Hutchinson A, Khatkar R, Venkateshmurthy NS, Prabhakaran D, Mohan S. Performance of a Community Based Strategy Led by Health Workers Using Lung Function Questionnaire and Pocket Spirometer for Detecting Chronic Obstructive Pulmonary Disease in Rural India. D13 Improving Diagnosis, Care Quality, and Adherence in COPD-Mini Symposium; 23rd May; 2018; San Diego, Southern California. p. A6171-A.

Jose AP, Bhalla S, Bagre V, Sharma A, Pandey N. Collaborating with state governments for building capacity of medical officers in the management of hypertension and its complications. 27th Scientific Meeting of the International Society of Hypertension; 20th – 23rd September; 2018; Beijing, China.

Jose AP, Bhalla S, Kumar P, Monga D, Gupta P, Sharma A. Certificate course in cardiovascular disease and stroke: an innovative capacity building model for primary care physicians in India. World Cardiology Congress; 05th-08th December; 2018; Dubai, United Arab Emirates.

Koundal A, Monga D, Bagre V, Soni T, Deshpande S, Bhatt A, Bhalla S, Kumar P, Prabhakaran D, Unnikrishnan AG. Quality Assurance of capacity building programme for PCPs in management of thyroid disorders. 6th Annual conference of Endocrine Society of Tamil Nadu; 7th- 8th July; 2018; Pondicherry, India.


Kumar P, Jose AP, Sharma A, Bagre V, Bhalla S. Need of capacity building in hypertension management of primary care physicians in India. World Cardiology Congress. World Cardiology Congress; 05th-08th December; 2018; Dubai, United Arab Emirates.


Monga D, Bhalla S, Kumar P, Prabhakaran D. Capacity building of primary care physicians in management of NCDs in India. 6th Annual conference of Endocrine Society of Tamil Nadu; 07th-08th July; 2018; Pondicherry, India.

Nath A. From Research to Action- addressing prenatal mental health in India. Research investigator’s meeting; 12th-13th July; 2018; Hinxton, Cambridge.

Nazar GP, Srivastava S, Chang K, Pearce N, Karan A, Millett C. Impact of India’s National Tobacco Control Programme on bidi and cigarette consumption: a difference-in-differences analysis. 17th World Conference on Tobacco or Health; 07th-09th March; 2018; Cape Town, South Africa.


Pandey S. Estimating tuberculosis burden from primary survey data: a mathematical modeling approach. Clinic for Meaningful Modeling of Epidermiological Data; 08th May-08th June; 2018; Cape Town, South Africa.


Yamuna A, Babu GR, Deepa R, Kinra S, Prafulla S, Maitihi K, Kiran HN, Keerti D, Murthy GVS. Understanding the prevailing screening and management practices of Gestational Diabetes Mellitus in public hospitals, Bangalore, India 7th PHFI Annual Research Symposium; 29th-30th October; 2018; New Delhi, India.
Awasthi A. Hypertension in India: A nationally representative study of 1.4 million adults. 35th annual conference of Indian Society for Medical Statistics; 02nd-04th November; 2017; Lucknow, India.

Babu GR. Environmental Health and Sustainable Development. International conference of the Public Health Foundation of India and the Pacific Basin Consortium; 04th-06th November; 2017; New Delhi, India.

Babu GR. Hyperglycaemia in Pregnancy and risk of chronic diseases. World NCD Congress; 04th-06th November; 2017; Chandigarh, India.

Babu GR. Effect of Exposure to ambient particulate matter on Adverse Infant Outcomes: An ecological study. 06th PHFI Annual Research Symposium; 31st August; 2017; New Delhi, India.


Bhalla S, Kumar P, Jose A, Unnikrishnan R, Unnikrishnan AG, Mohan V, Tandon N, Prabhakaran D. Capacity building of physicians in management of chronic conditions: Experience from multiple stakeholder model in India. International Diabetes Congress (IDF); 4th - 8th December; 2017; Abu Dhabi.


Bhattacharyya S. Use of Data & Resource Allocation: Qualitative Study of District-based Decision Making in Health, India. 15th World Congress of Public Health; 03rd-07th April; 2017; Melbourne, Australia.

Borhade A, Dey S, Tripathi A, Mavalankar DV, Webster P. Migration and health: a review of policies and initiatives in low and middle income countries. Public Health Science Conference; 25th November; 2017; Cardiff, United Kingdom.


Chandwani H, Wadhwani P, Bhalla S, Unnikrishnan R, Tandon N, Prabhakaran D, Mohan V. A tool to ascertain the impact on knowledge of a pan India diabetes training. International Diabetes Congress (IDF); 04th - 08th December; 2017; Dubai, United Arab Emirates.


Devasenapathy N, Belavy D, Maddison R, Zodpey SP. Predictors of performance based functional outcomes one year after primary Total Knee Arthroplasty for end stage osteoarthritis in Indian population - A cohort study. Health symposium: Frontiers in Global Health: Deakin and its partners in India; 01st November; 2017; Chennai, India.

Golechha M, Jain P. A. M. Community Perspective on Climate Change in rural Rajasthan. Environmental Health and Sustainable Development: International conference of the Public Health Foundation of India and the Pacific Basin Consortium; 14th-16th November; 2017; New Delhi, India.

Golechha M, Jain P. A. M. Mitigating adverse effects of temperature extremes due to climate change on health through traditional community practices and early warning system in rural Rajasthan. Tata Institute of Social Sciences; 26th-28th November; 2017; Mumbai, India.


Jose AP, Vats S, Sharma A, Pandey N, Prabhakaran D, Bhalla S. Nationwide capacity building programmes for primary care physicians in chronic conditions: Implementation experiences over the last six years. 13th Asian-Pacific Congress of Hypertension; 6th-8th October; 2017; Singapore.


Kumar P, Bhalla S, Monga D, Soni, Tanu, Bagre V, Koundal A, Deshpande S, Bhatt A, Tandon N, Prabhakaran D, Unnikrishnan AG. Evaluation and Quality Assurance of Effectiveness of an AOTA recognized Thyroid Training Programme for Primary Care Physicians in India. 87th Annual Meeting of the American Thyroid Association; 19th October; 2017; Victoria, BC, Canada.

Kumar S, Monga AA, Chandwani H, Kumar P, Bhalla S, Prabhakaran D. To strengthen the knowledge, skills and core competencies of the Govt. medical officers of Mizoram by South Asian Federation of Endocrine Societies (SAFES) recognized CCEBDM training programme supported by NHM, Govt. of Mizoram. Northeast Healthcare Summit; 8th-9th September; 2017; Sikkim, India.

Lal DK. Health workforce regulation in India. International workshop on Regulation of Health Workforce-comparative studies; 23rd-24th July; 2017; Paulo, Brazil.

Monga AA, Prabhakaran D, Bhalla S, Kumar P, Mohan V, Unnikrishnan R. A tool to ascertain the impact on knowledge of a pan India diabetes training. International Diabetes Congress (IDF); 04th - 08th December; 2017; Dubai, United Arab Emirates.

Nath A, Shubhashree WV, Murthy GV, S. Prevalence and determinants of common mental disorders in pregnant women availing of antenatal services at a public sector hospital in Bengaluru-findings from a pilot study. XXVIII Annual Karnataka Association of Community Health Conference; 27th-28th October; 2017; Dharwad, India.

Prabhakaran P. Abstract 699: Prevalence of depressive disorder among members of the New Delhi Birth Cohort -? role of early life influences. 10th World Congress on Development Origins of Health and Disease (DOHaD 2017); 15th-18th October; 2017; Rotterdam, The Netherlands.

Prabhakaran P. Abstract 706: Assessment of lung function among adult members of the New Delhi Birth Cohort, India. 10th World Congress on Development Origins of Health and Disease (DOHaD 2017); 15th-18th October; 2017; Rotterdam, The Netherlands.

Singh A, Choudhary S, Kumar S, Mehra R, Jose AP, Kumar P, Bhalla S. Data analysis of evidence based diabetes management capacity building programmes for primary care physicians in India. International Diabetes Congress (IDF); 04th - 08th December; 2017; Dubai, United Arab Emirates.


Tyagi R, Jose AP, Bhalla S. GIS: A tool for evaluation and improving access of a capacity-building programme in diabetes for primary care physicians. International Diabetes Congress (IDF); 4th - 8th December; 2017; Abu Dhabi.

Varghese B, Saha S. Cost and Cost-effectiveness of the Yashoda programme: a facility based maternal and newborn intervention in India. IHEA World Congress - Revolutions in the Economics of Health; 08th-11th July; 2017; Boston, .

Reports

2018

Authors from PHFI: Ghosh S, Bahuguna V, Sen B, Krishna B, Bachani D. Opportunities for Transition to Clean Household Energy (Application of the Household Energy Assessment rapid Toop (HEART)). World Health Organization, Geneva, Switzerland, 2018

Babu GR. Ambient and Indoor Air pollution in pregnancy on the risk of low weight and ensuring effects in infants (APPLE); A cohort study in Bangalore, South India. Semiannual (September 2017 to March 2018), Department of Science and Technology, Government of India & Public Health Foundation of India, New Delhi, India, 2018

Babu GR. Evaluating the Effect of one Full meal a day in Pregnant and Lactating Women: (FEEL). Quarterly Report, September, Department of women and Child health, Karnataka & Public Health Foundation of India, Karnataka, India, 2018

Sen G. The SDGs and feminist movement-building. UN Discussion Paper Series No. 29, New York, USA, 2018

2017


Avan B, Schallenberg J, Issac A, Bhattacharya S. Data informed platform for Health. Monitoring reports. London school of Hygiene and Tropical Medicine and Public Health Foundation of India, New Delhi, India, 2017

Babu GR. Hyperglycemia in pregnancy and risk of chronic diseases in children. Annual Report, Wellcome trust DBT India Alliance & Public Health Foundation of India, Karnataka, India, 2017


Centre for Environmental Health, Air Pollution and Health in India: A review of the current evidence and opportunities for the future. Centre for Environmental Health, Public Health Foundation of India, New Delhi, India, 2017


Transform Nutrition Team:. Transform Nutrition Research Programme Consortium - Final Report. International Food Policy Research Institute and funded by the UK Department for International Development (DFID). Partners include the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR, B), Institute of Development Studies (IDS), Public Health Foundation of India (PHFI) and Save the Children (SC), New Delhi, India, 2017