

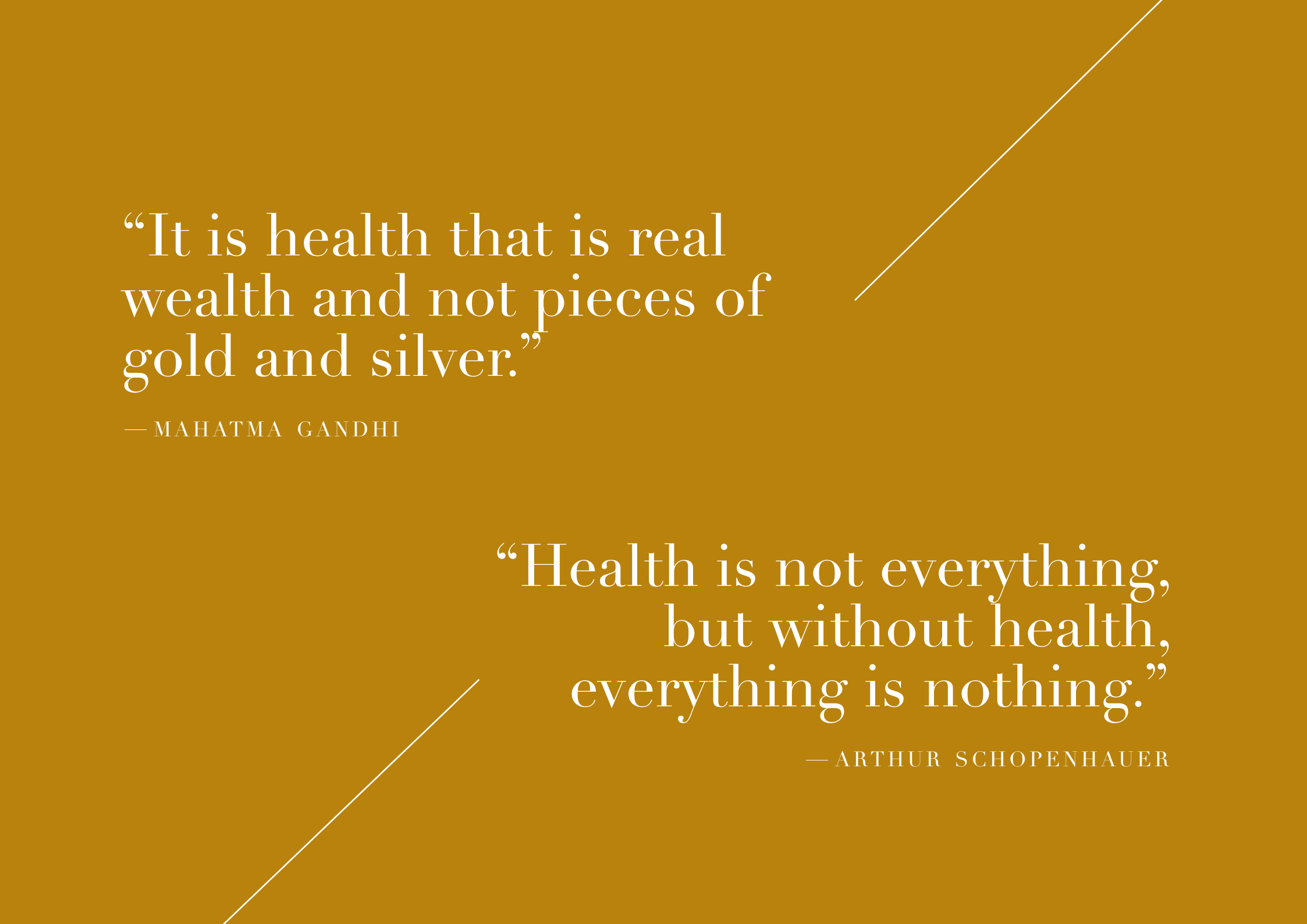
# 10 YEARS

YOUR *G*UIDANCE CREATED THIS

# OF PHFI



PUBLIC  
HEALTH  
FOUNDATION  
OF INDIA



“It is health that is real  
wealth and not pieces of  
gold and silver.”

— MAHATMA GANDHI

“Health is not everything,  
but without health,  
everything is nothing.”

— ARTHUR SCHOPENHAUER

A group of Indian school children, mostly boys, are gathered on a green lawn. They are wearing blue checkered shirts, grey trousers, and striped ties. Many of them are holding small Indian flags (saffron, white, and green with the Ashoka Chakra in the center). The children are looking in various directions, some towards the camera, some away. The overall atmosphere is one of a school event or a patriotic celebration.

# PHFI: WORKING TOWARDS A HEALTHIER INDIA



*Photo Credit: Pranab Aich*

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# FROM THE PRESIDENT'S PEN



Ten years in the lifetime of a new institution is a time for celebration as well as introspection. It is also a time to thank all those who have provided immense strength through inspirational mentorship, astute guidance, immaculate governance and generous financial support. This profile of PHFI's progress aims to do all of these by tracing the journey since the organisation's birth in March 2006 and highlighting some of the notable accomplishments over an eventful decade of growth. It is not a detailed technical report of all activities but provides vignettes of impactful initiatives that are assisting the transformation of India's public health.

PHFI was born at a time of great confidence in India's soaring economic growth but also of great concern about the appallingly poor health indicators that were utterly incongruous with the image of a rapidly developing country. Apart from high rates of infant, child and maternal mortality, as well as shockingly high levels of child undernutrition and adolescent anaemia, a multitude of infectious diseases extracted a high toll of avoidable deaths and disability. Those

who survived these threats faced the mounting menace of non-communicable diseases like cardiovascular disorders, diabetes, cancers, chronic respiratory diseases and mental illness. Personal health, family fortunes and national productivity- all fell prey to diseases that could have prevented or detected early for effective control. The response of a poorly configured and seriously under resourced

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**One of the key reasons for the poor performance in health, was the failure to establish institutions which could advance public health education and research into transformational policy and practice**

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health system, to these complex challenges was feeble and uncoordinated. Policies and programmes in other sectors, which profoundly impact on health, were not sensitive or aligned to public health goals. India's embarrassingly low position, in the global listings of Human Development Index, was due to neglect of health and education at the population level, despite islands of excellence in tertiary medical care or higher professional education.

One of the key reasons for the poor performance in health, was the failure to establish institutions which could advance public health education and research into transformational policy and practice. Medical colleges did not measure up to the task of providing multi-disciplinary and health system connected education in public health. Lack of public health expertise adversely affected policy development, programme design, delivery and evaluation as well as the development of problem solving innovations. A national consultation, convened by the Union Ministry of Health and Family Welfare in September 2004, recommended the creation of a foundation which could rapidly advance public health education, training, research and advocacy. PHFI was born as a result, as a unique public –private initiative representing a new kind of PPP (Partnership for a

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## Trans- disciplinary learning and multi -sectoral application form the double helix of PHFI's DNA

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Public Purpose). Trans- disciplinary learning and multi - sectoral application form the double helix of PHFI's DNA.

Over the past decade, PHFI has established five Indian Institutes of Public Health (four in active motion and a fifth in infancy). It is conducting a wide array of post-graduate degree and diploma programmes, on campus and by distance education, both under its umbrella and in partnership with other academic institutions. It has assembled a technical talent pool of over 600- inclusive of faculty and dedicated researchers. Apart from sending out over 100 young faculty for training in public health in some of the best public health schools in the world, PHFI has succeeded in attracting talented diaspora from world over. Our faculty are sought after, as visiting or adjunct faculty, by leading global public health schools. A variety of diploma, MPH and MSc-PhD

courses are offered by the IIPHs, through a mix of campus and distance education programmes. The diploma in public health management is linked to the National Health Mission and has trained a large number of deputed medical officers from states across the country. A variety of short term trainings are on offer, as are certificate courses for primary care physicians.

PHFI has also built up an impressive portfolio of research and implementation projects, funded by reputed national and international agencies through competitive grants. With over 1600 publications in scientific journals and an average impact factor of 5.3, PHFI has established a creditable track record in research and has been so recognised by the Department of Scientific and Industrial Research. More important, the research is providing useful inputs to India's health policy and programmes in many areas of public health importance. Four funded centres of excellence in chronic diseases, disabilities, equity and social determinants and environmental health are leading applied research projects and capacity development in those areas.

Technical assistance is also being provided to central and state governments for health system strengthening. Areas of such engagement include

HIV prevention, routine immunisation, allied health professional training, universal coverage, health accounts and budgeting, access to drugs, antibiotic resistance, tobacco control, environmental health, health workforce planning and public health cadre development.

Technologies for affordable health care have been developed by PHFI and are now being evaluated in field studies. *Swasthya Slate* is now being used by auxiliary nurse midwives in six districts of Jammu and Kashmir, under the National Health Mission and in the first *Mohalla Clinic* of the Delhi government. As m-health and tablet based decision support systems are being evaluated by our researchers in primary health care settings of several states for hypertension and diabetes management, drones have been developed by our students for delivery of drugs for treatment of tuberculosis.

At the global level too, faculty and researchers are actively contributing to many initiatives, expert groups and commissions such as Agriculture and Food Systems for Nutrition, Global Burden of Disease Study, WHO Commission on Ending Child Obesity, Lancet Commissions on Health Professional Education, Mental Health, Investing in Health, Palliative Care and Obesity as well global panels on

Antibiotic Resistance. International conferences have been convened by PHFI on maternal health, antibiotic resistance, endgame for tobacco, global youth meet on health, health in sustainable development and new directions for public health education.

These ten years have been a period of rapid growth and intense activity on many fronts. There have been several challenges as well, the foremost being the delay in securing university status or university affiliation for degree courses and the financial cost of constructing multiple campuses. However, the growing PHFI family has risen above these to deliver many valuable contributions to national and global health. For enabling us to do this, we owe a huge debt of gratitude to the Government of India, State Government Partners, our Board led by our visionary Chair Shri NR Narayana Murthy, our supportive donors, thoughtful technical advisors, and the many esteemed Indian and international academic partners. We look forward to their continued guidance and support as we move in to the next decade of PHFI's life with renewed commitment to the mandate of raising India's health to the best global standards.

**Professor K. Srinath Reddy**  
President, PUBLIC HEALTH FOUNDATION OF INDIA

# BOARD MEMBERS

## General Body

Membership as on October 16, 2015, post the 2015 Annual General Meeting

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Co-Founder, Infosys Limited

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Former Deputy Chairman, Planning Commission, Government of India

Mr. Ashok Alexander  
Director, Antara Foundation. Former Director, Bill and Melinda Gates Foundation

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Founder and Director, Society for Education, Action and Research in Community Health (SEARCH)

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Dr. Timothy G. Evans  
Director for Health, Nutrition and Population, World Bank

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UN Secretary General Special Envoy for AIDS, Asia & the Pacific

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Mr. N. R. Narayana Murthy, Chairman, PHFI

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Co-Founder, Infosys Limited

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Planning Commission, Government of India

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Ministry of Science & Technology, GOI

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

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

Mr. Uday Nabha Khemka  
Vice Chairman, SUN Group

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Chairman, Canara Bank

Mr. Bhanu Pratap Sharma  
Secretary, Ministry of Health & Family Welfare,  
GOI

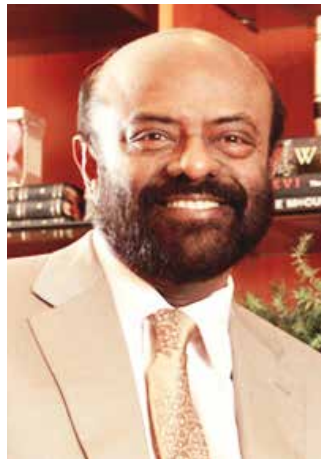
Dr. Sunil Kaul  
Founder & Managing Trustee,  
The Action North East Trust

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

# FORMER CHAIRS OF THE PUBLIC HEALTH FOUNDATION OF INDIA



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Former Managing Director  
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Mr Shiv Nadar  
Founder and Chairman  
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Dr Y. Venugopal Reddy  
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Reserve Bank of India (RBI)



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Mr. Sudhir Mankad  
Former Chief Secretary,  
Government of Gujarat



Chair – IIPH - B Advisory Council  
Mr. Bajjayant 'Jay' Panda  
Member of Parliament  
from Kendrapara



Chair – IIPH - D Advisory Council  
Mr. JVR Prasada Rao  
UN Secretary General Special  
Envoy for AIDS, Asia & the Pacific



Chair – IIPH - H Advisory Council  
Dr. P. Rama Rao  
Chairman - ARCI, Hyderabad

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Chair of Research Advisory  
Committee  
Prof. Barry Bloom  
Former Dean, Harvard School of  
Public Health



Chair of Academic Advisory  
Committee  
Prof. Abraham Joseph  
Director, Christian Institute of  
Health Sciences & Research



Chair of Institutional Ethics Committee  
Prof. Nikhil Tandon  
Head - Department of Endocrinology,  
Metabolism & Diabetes, All India Institute of  
Medical Sciences

# ACADEMIC, RESEARCH AND PROJECT LEADERSHIP

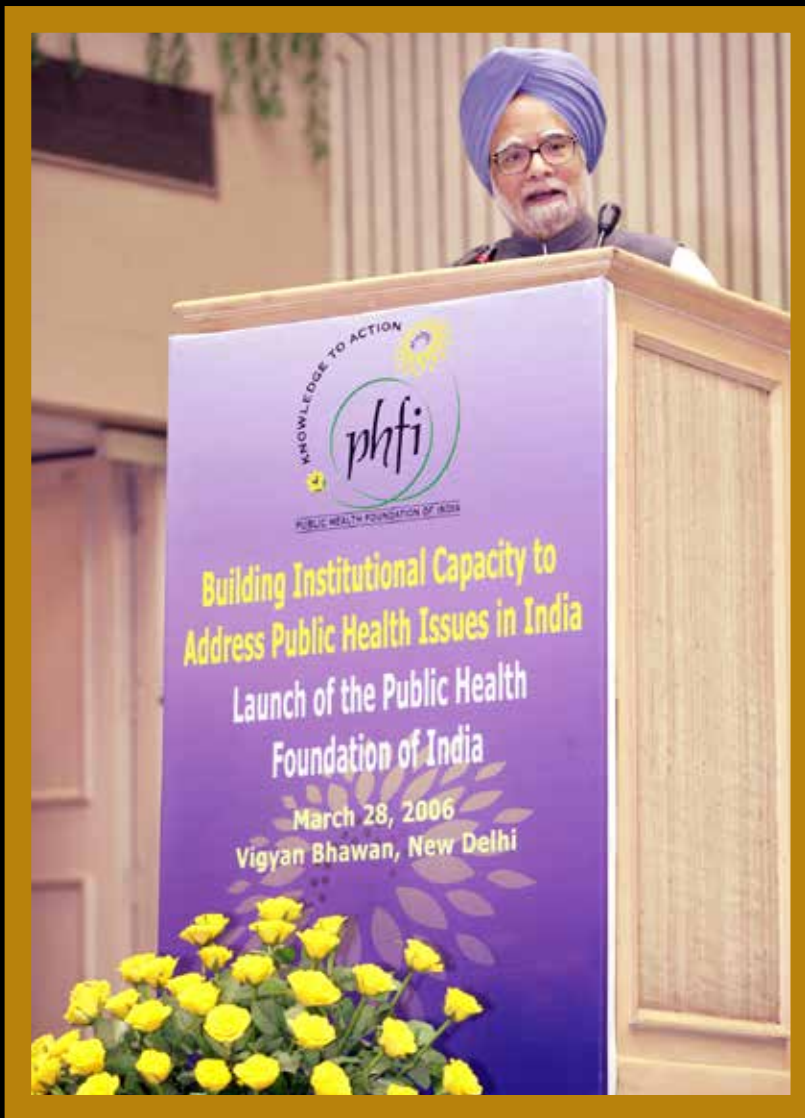
	Prof. K. Srinath Reddy President		Prof. J. K Satia Advisor to President		Prof. Sanjay Zodpey Director, IIPH-Delhi, Vice President (Academics)		Prof. Dorairaj Prabhakaran Director, Centre for Chronic Conditions & Injuries (CCCI), Vice President (Research)
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	Dr. Preeti Kumar Director -Training		Dr. Monika Arora Director- Health Promotion		Dr. Kabir Sheikh Senior Research Scientist and Adjunct Associate Professor		Dr. Manish Kakkar Senior Public Health Specialist

# ACADEMIC, RESEARCH AND PROJECT LEADERSHIP

	Dr. Ashok Agarwal Chief of Party - PIPPSE		Mr. Deepak Bhatia Director, Routine Immunisation		Mr. Joy Ghosh Project Director, Community Mobilisation		Dr. Beena Varghese Senior Health Economic Specialist
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# MANAGEMENT LEADERSHIP

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	Mr. Rohit Prasad Director-Development & Strategic Initiatives		Mr. N Ramachandran Advisor to President, PHFI		Mr. Amit Chaturvedi Director-Finance		Ms. Aparajita Roy Head-Human Resources
	Dr. Jayaram M Senior Academic Registrar IIPH - H		Mrs. Kalpana Swamy Academic Registrar IIPH - D		Dr. P S Ganguly Registrar - IIPHG University		Dr. Suresh Shapeti Senior Administrative Officer and Deputy Registrar (Bangalore Campus)



“The setting up of the Public Health Foundation of India presents a unique opportunity to develop innovative models of public-private partnership in major social sector programmes. Such partnership can help blend the commitment of government with the operational efficiency of not-for-profit private groups.”

—Dr Manmohan Singh

Dr Manmohan Singh at the launch of PHFI. *Photo credit: PHFI*

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# THE GENESIS

# THE MAKING OF PUBLIC HEALTH IN INDIA



ASHA worker using a tablet to counsel a woman on child health. *Photo Credit: PHFI*

A country's prosperity rides on the health of its population. Today, the foremost challenge confronting India is improving its performance on health indicators. Beyond these numbers which represent national averages, there is a human dimension to public health – all sections of India's population need to be assured of accessible, affordable, and effective health services. It is also important to envision health as extending beyond illness care to disease prevention and wellness promotion. Health care reforms, in the last decade, experienced a paradigm shift from an exclusive focus on clinical medicine to a concerted public health response, thereby making provision for health promotion, disease prevention, and affordable diagnostic and therapeutic health care for all. Central to this shift has been the growth of public health — a multi-disciplinary academic stream and a multi-sectoral implementation pathway.

Public Health as a formal discipline should ideally integrate streams of knowledge from diverse disciplines, bringing together learnings and perspectives from life sciences (especially human biology), quantitative sciences (such as epidemiology, biostatistics and demography), social and behavioural sciences (including economics, sociology, anthropology and communication), political science, humanities (especially human rights and ethics), and elements of management. While the specific applications of such knowledge would vary across medicine and public health, a broad array of disciplines must inform and influence the totality of their precept and practice to advance global health. This holistic approach, at the moment was grossly underdeveloped in independent India. This is impeding policy coherence as well as access to quality health services.

Due to an insufficiently developed institutional capacity for public health education, inadequate availability of well-rounded public health experts has seriously incapacitated public health policy and research. The numbers of graduates from existing health schools are insufficient to fulfil the need for trained health professionals. The resultant shortfall of professionals with inter-disciplinary orientation,

relevant knowledge and skill-sets has inhibited broader understanding of health issues as well as hindered opportunities for multi-sectoral public health action. Several expert committees set up by the Government of India have recommended the need for establishing institutes of public health. However, no specific action was initiated to implement these recommendations till 2006.

As a response to these urgent and well-acknowledged needs of India and the entire South Asia region, the Public Health Foundation of India (PHFI) was established as a large-scale, autonomous, public-private initiative in March 2006. In the inception of this institution lies the intent to build broadband public health capacity, and a commitment to meet the short supply of health professionals for a sustained response to major public health concerns.



PHFI researchers in the lab. *Photo credit: PHFI*



A male health worker providing health information in the community. *Photo credit: PHFI*

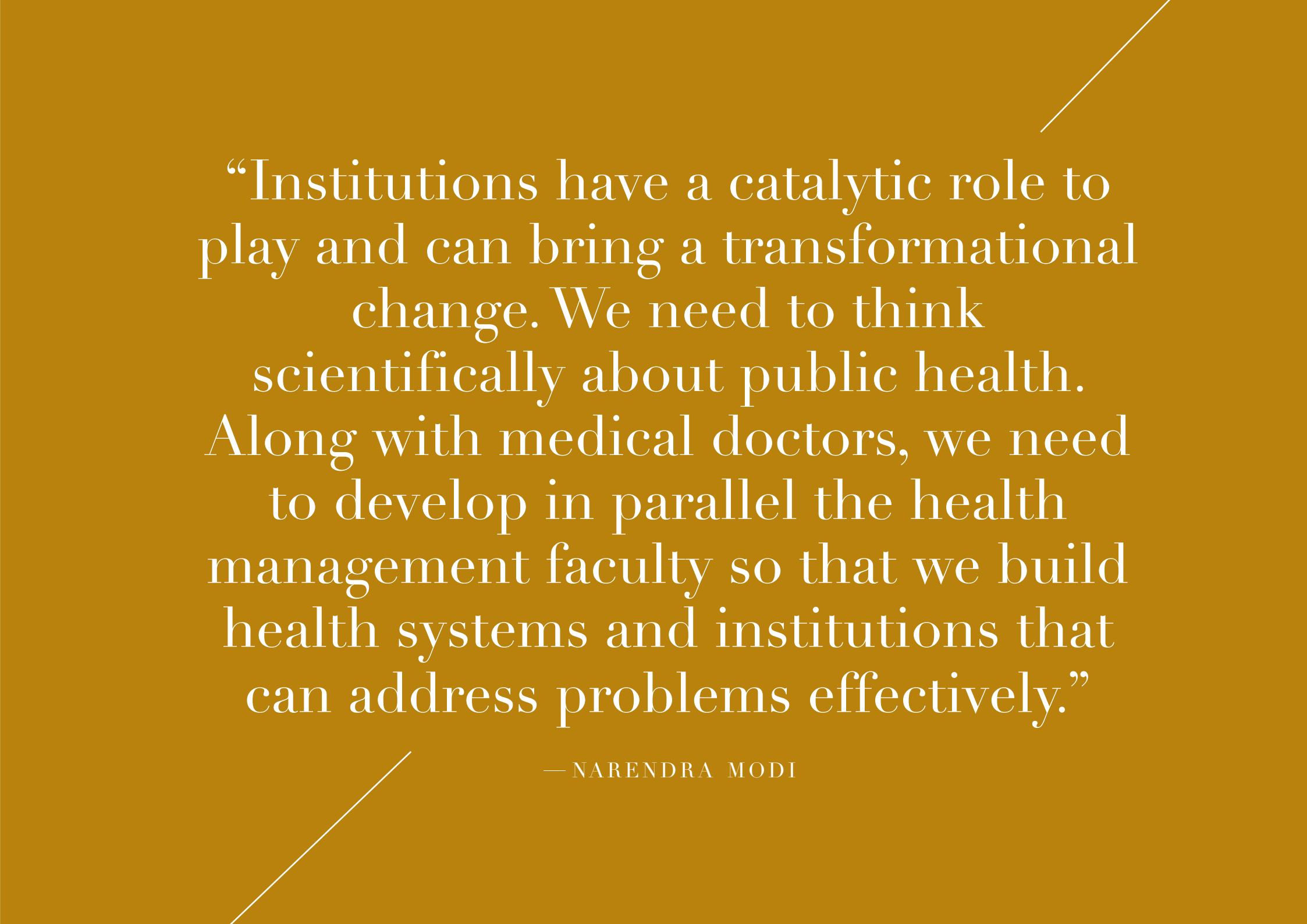
n, Gandhinagar

RAMO

Gujarat

7





“Institutions have a catalytic role to play and can bring a transformational change. We need to think scientifically about public health. Along with medical doctors, we need to develop in parallel the health management faculty so that we build health systems and institutions that can address problems effectively.”

— NARENDRA MODI

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Science Discovers  
Technology Develops  
Public Health Delivers

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Delhi NCR office of the Public Health Foundation of India  
and the Indian Institute of Public Health (IIPH D)



# BUILDING OF A THINK TANK, ACADEMIC AND RESEARCH INSTITUTION

 ver the past decade, PHFI has begun to play a transformative role in India's public health environment. In doing so, it engages a wide array of stakeholders who include central and state governments, national and international donors, civil society, academic and research institutions and the communities that PHFI works with.

By helping to create a strong ecosystem that acts at multiple levels, PHFI is working to break barriers that are impeding India's public health performance. The dispersed location of the IIPHs as well as wide ranging partnerships across the country, enable PHFI to address these challenges in a contextually appropriate manner, within a binding national ethos of sound public health values.

Dialogues with policy makers, civil society and academics are set-up on a multitude of areas in public health, ranging from tobacco control to what are women's requirements in delivery of maternal health services, with the consultations extending from the grassroots to the national level.

In its journey over the last ten years, PHFI has built a knowledge base and created cross-learning platforms, while growing an organisation imbued with commitment towards public good. While PHFI's educational programmes advance the precept and practice of public health in a multi –disciplinary framework, its agenda of policy and programme relevant research is bridging critical knowledge gaps and advancing implementation

# OUR VISION, MISSION AND VALUES

## 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 approaches

### Excellence

- Aim for highest standards in all aspects of our work

- Encourage, recognise and celebrate our achievements

### Independence

- Independent view & 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 organisations



SETTING THE GPS FOR  
POPULATION HEALTH

Knowledge

Action

Impact

Equity

From PHFI's Yoga - CaRe trial, a yoga based cardiac rehabilitation programme. Photo Credit: Chandrashekhar/PHFI

# OUR JOURNEY

2006



Launch of Public Health Foundation of India

2007

Bhoomi Pujan for permanent campus of IIPH – Gandhinagar



2008

Establishment of IIPHs – Gandhinagar and Hyderabad

Launch of PGDPHM for National Health Mission

2009

Establishment of IIPH – Delhi

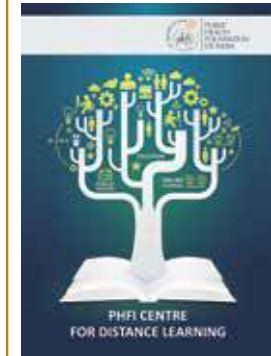
Launch of Diploma Programmes (Health Economics and Bio Statistics)

2010

Establishment of IIPH – Bhubaneswar

2011

Distance Learning Education Programmes Launched



PHFI registered as a Scientific and Industrial Research Organisation (SIRO), by Department of Scientific and Industrial Research, Government of India

# OVER 10 YEARS

2012

PHFI accorded status of a Nodal Centre of the Alliance for Health Policy and Systems Research (WHO)

2013

Launch of Integrated MSc & PhD in Health Informatics and Clinical Research

2014



International Diabetes Federation awards Certificate of Excellence to PHFI's primary care training programme



'Swasthya Slate' (the electronic tablet for point-of-care diagnostics, introduced for RMNCH+A implementation in J&K by National Health Mission)

2015

Launch of MPH programme at IIPH – Gandhinagar and Hyderabad

IIPH – Gandhinagar accorded University Status under the State Act

Establishment of Indian Institute of Public Health – Shillong


Bhoomi Pujan of Permanent campus of IIPH – Hyderabad



2016

Launch of Permanent campus of IIPH – Gandhinagar

Launch of MPH programme through affiliation between IIPH - Delhi and Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum



“Alone we can do so little;  
together we can do so much.”

— HELEN KELLER



Women's self help group meeting session on family health, PHFI's U.P. project. Photo credit: PHFI



Women from a community in Assam make their way to attend Village and Nutrition Day events. *Photo credit: Pranab Aich /ITSU*

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# THE JOURNEY



#### **PHFI IS CATALYSING CHANGE BY:**

- **Building a trained public health workforce** through world-class, India relevant educational courses and training programmes
- **Supporting improvement of core public health programmes** such as Immunisation; HIV/AIDS prevention; Allied Health workforce capacity building through technical assistance (as Technical Support Units) to Government of India and to the state governments
- **Implementing public health projects** across a wide range of areas such as Maternal and Child Health, Infectious disease surveillance and control and Chronic Diseases Prevention and Control
- **Promoting policy and programme relevant research** by filling critical information gaps, conducting health impact assessment and evaluating innovations for improving the outreach and effectiveness of health systems.
- **Supporting policy development and launching advocacy initiatives** for: advancing agenda of Universal Health Coverage; action against air pollution and its health effects; public health cadres, at state level; tobacco control.

### **Addressing the shortage of trained public health professionals and workers**

Providing world class, India relevant programs - degree (Masters in Public Health), diploma (Public Health Management), certificate and online courses - offered by 4 Indian Institutes of Public Health at Gandhinagar, Hyderabad, Delhi NCR and Bhubaneswar. Over 1000 plus graduates, 17,000 plus trained through short term programs, and over 1300 plus through distance learning.

### **Improving Immunisation Coverage Rate among children**

Through Immunisation Technical Support Unit (ITSU), PHFI is helping MoHFW in the expansion of immunisation coverage, improvement of quality, and introduction of new vaccines. PHFI has extended support to 'Mission Indradhanush' for targeted increase from 65% to 90% rate of coverage of full immunization among children.

### **Helping prevention and control of HIV/ AIDS in India**

Supporting National AIDS Control Organisation (NACO) as Technical Support Unit for stronger program implementation, monitoring and evaluation. Through another USAID supported program, helping

scale up targeted Interventions (50% increase), quality of reporting, and communication programs for increased awareness and better participation of private sector organisations.

### **Introducing Affordable Technologies - 'Swasthya Slate' for primary health care in rural communities**

PHFI developed the 'Swasthya Slate', a unique tablet based, affordable and portable diagnostic platform for use by health workers in rural and/or remote areas of the National Health Mission. Deployed in J&K under RMNCH+A program, it has registered nearly 20,000 pregnant women, and has reported improved turnaround time for antenatal tests from 14 days down to 40 minutes.

### **Improving family health through Self Help Groups (SHGs) led behaviour change program in rural communities**

PHFI has provided technical support for introduction of maternal and neonatal health interventions through 50,000+ SHGs in 100 talukas (blocks) of Uttar Pradesh. The use of community platforms has led to an increased uptake of several health mediations in SHG households. This model has the potential for replicability across other SHGs in the country.



Community worker in a session with young women on HIV / AIDS awareness in Maharashtra. Photo Credit: PIPSSE project

### **Responding to Climate Change - Developing City (Ahmedabad) Heat Action Plan**

IIPH - Gandhinagar developed South Asia's first city based Heat Action Plan (HAP) that was implemented in Ahmedabad. Subsequent to its execution, mortality during heat wave reduced by 30%. The Heat Action Plan is now being scaled up in Maharashtra, Odisha, and Telangana, and is gaining attention at global forums, including the COP 2015 event in Paris where it was displayed in the India pavilion.

### **Preventing avoidable blindness among adults and children**

PHFI is coordinating programmes aimed at preventing avoidable blindness due to Diabetic Retinopathy (affecting adults, causing significant disability) and Retinopathy of Prematurity (affecting pre-term babies and rendering them blind for life). This program, in partnership with leading eye care organizations, is being run across several states in association with MoHFW and is supported by Queen Elizabeth Diamond Jubilee Trust of UK.

### **PHFI is also**

- Driving action through research and advocacy against Air Pollution and its adverse health effects
- Advancing agenda of Universal Health Coverage in India
- Training and developing capacity of Primary Care Physicians in detection and care of chronic conditions
- Advancing health policy through research on health financing, access to drugs and health workforce availability and performance.



A mother and her children post vaccination in tribal Odisha. Photo Credit: Pranab Aich /ITSU



“He who has health has hope,  
and he who has hope  
has everything.”

— ARABIAN PROVERB



Community orientation on water testing in West Bengal: From PHFI documented public health case studies across India.  
*Photo credit: PHFI*

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SCALING UP  
PUBLIC HEALTH  
EDUCATION & SKILLS

# BUILDING INDIAN INSTITUTES OF PUBLIC HEALTH FOR DEVELOPING PUBLIC HEALTH WORKFORCE

*A*t the time of its launch in 2006, PHFI had set out a Charter that focused on institutional capacity-building to strengthen education, training, research and policy development in public health across India. Our sustained vision has also been to strengthen India's public health institutional and systems capability, and to apply knowledge to achieve better health outcomes for all sections of people

PHFI has set up five Indian Institutes of Public Health (IIPHS) in Gandhinagar, Delhi NCR, Hyderabad, Bhubaneswar and Shillong. The IIPHS are envisioned as world class public health institutions capable of responding to public health challenges of the state, region, and the country. Working as an interlinked network, the IIPHS function as vibrant hubs for public

health education, training, research and practice with a strong health system connect. The IIPHS are set up in partnership with the respective state governments. These state-level institutions function with active support and guidance from the respective state governments. A fully-empowered, independent Governing Council, with eminent persons from academia, representatives from governments, civil society, philanthropies, and professional organisations, was constituted to provide strategic guidance and oversight to PHFI. Each IIPH also has a similarly constituted Advisory Council in each of the states. The representative nature of such a broad based public-private partnership governs PHFI and the IIPHS. This permits operational autonomy, while allowing benefits of governmental guidance and civil society scrutiny.

# IIPHs ARE ENVISIONED AS WORLD CLASS PUBLIC HEALTH INSTITUTIONS FOR RESPONDING TO PUBLIC HEALTH CHALLENGES OF INDIA

SREE CHITRA TIRUNAL INSTITUTE FOR  
MEDICAL SCIENCES AND TECHNOLOGY  
(SCTIMST) COLLABORATION  
(FOR MPH PROGRAM)

PHFI-ACSIR COLLABORATION  
(INTEGRATED MSC & PHD PROGRAMS  
IN HEALTH INFORMATICS &  
CLINICAL RESEARCH)

IIPH-  
DELHI

IIPH- SHILLONG

TRAINING  
PROGRAMMES TO  
COMMENCE IN 2016

IIPH- GANDHINAGAR

IIPH- BHUBANESWAR

INDIA'S FIRST PUBLIC HEALTH UNIVERSITY  
ESTABLISHED AS A UNIVERSITY UNDER THE  
STATE ACT OF THE GOVERNMENT OF GUJARAT  
FIRST PERMANENT CAMPUS IS COMING UP AT  
IIPH- GANDHINAGAR

IIPH- HYDERABAD

IIPH-H - DR NTR UNIVERSITY  
OF HEALTH SCIENCES  
COLLABORATION  
(FOR MPH PROGRAM)

IIPH - BENGALURU  
CAMPUS

GOVERNMENT OF KARNATAKA  
COLLABORATION (TECHNICAL SUPPORT  
FOR PGDPHM PROGRAM) AT BENGALURU



“Today, I am proud to say that on the land of Gujarat, a great dream is being born. This building, this land, the walls are not going to enhance the name of the institution, but it shall be the development of people within this building (IIPHG Campus) who will become the guarantors for the future of India’s health. Friends, we are dreaming big and making an important effort to sow the seeds for a healthy future for India. I believe this will result in significant change,”

—Shri Narendra Modi  
(in 2007)

Honourable Prime Minister Shri Narendra Modi (then Chief Minister of Gujarat) speaking at the Bhoomi Pujan of the IIPH - Gandhinagar campus in 2007.

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## PHFI undertakes training in the following areas: Health Systems • Chronic Diseases and Injuries Infectious Diseases • Public Health Nutrition Tobacco Control • Women & Child Health

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At PHFI and the IIPHS, we have a dedicated multi-disciplinary faculty of over 75 qualified and competent members from diverse backgrounds who bring best in class knowledge and expertise to our public health programmes. PHFI and the IIPHS have strong faculty development programmes, with support from highly reputed global institutions of public health learning that bring in the latest knowledge and collaborations which can be put to use in the Indian context. PHFI's multi-disciplinary faculty includes demographers, epidemiologists, health systems experts, social and behavioural scientists, nutritionists, biostatisticians, and health economists.

### **INDIAN INSTITUTES OF PUBLIC HEALTH (IIPHS)**

#### **INDIAN INSTITUTE OF PUBLIC HEALTH - GANDHINAGAR (IIPH-G) UNIVERSITY, GUJARAT**

The Government of Gujarat and PHFI entered into a Memorandum of Understanding in 2007 to establish IIPH-G. Under this MoU, the Government of Gujarat allocated 50 acres of land and agreed to share a part of the project cost. The foundation stone for IIPH-G was laid in the year 2007 by the present Honourable Prime Minister of India, Shri Narendra Modi (then Honourable Chief Minister of Gujarat). In 2015, IIPH-G was recognized as India's first public health university through an Act passed by the Government of Gujarat.



The first permanent campus is coming up at IIPH-Gandhinagar, in partnership with Gujarat Government and will open in 2016. The institute launched its first Master in Public Health (MPH) Programme in 2015 and will initiate Ph.D programme in 2016.

Apart from imparting public health practice relevant professional education (such as Post Graduate Diploma in Public Health Management and short term training to students from various parts of India), IIPH-G also provides research-based health policy support to the Government of Gujarat. The Institute's activities have received funding support from the National Rural Health Mission (NRHM) of the Ministry of Health and Family Welfare, the Medical Council of India, the



ABOVE IIPH Gandhinagar campus under construction

LEFT Representative picture of IIPH Gandhinagar, India's first public health university

Council of Scientific Innovation and Research, the National Bank for Agriculture & Rural Development, the Karolinska Institute and the Natural Resources Defense Council, among others. IIPH-G faculty members are involved in research projects in maternal and child health, disease surveillance, nutrition, microfinance, monitoring health programs and advocacy, heat stress and health effects of climate change. IIPH-G has also launched an occupational health program, the 'Associate Fellow in Industrial Health' which is recognised by the Directorate General, Factory Advice Services & Labour Institutes, Ministry of Labour & Employment, Government of India.

### **INDIAN INSTITUTE OF PUBLIC HEALTH - HYDERABAD (IIPH-H), TELANGANA AND ANDHRA PRADESH**

Responding to the invitation issued by the State government on the very day PHFI was launched in 2006; IIPH-H became functional in July 2008 and launched a diploma programme in Biostatistics and Data Management. IIPH-H works in close collaboration with the State Governments of Telangana and Andhra Pradesh to provide technical support, to generate evidence for planning, and to participate in programmes to augment public health capacity in the state. IIPH - Hyderabad is supporting the Government through capacity building of Medical Officers and



Representative picture of IIPH - Hyderabad.

programme managers in public health management, biostatistics and data management. The institute also works closely with the Government of Karnataka and has a campus in Bangalore, where training is conducted for health personnel deputed by the State Government. The institute also undertakes trainings in cross-cutting areas like epidemiology, biostatistics, behavioural sciences, health economics, health services management, environmental health, health inequities and human rights, gender and health, health communication and the ethics of health care. The flagship courses of IIPH-H are the Masters in Public Health (offered in collaboration with University of Hyderabad), Integrated MSc and PhD in Health Informatics, Post Graduate Diplomas in Public Health Management and in Biostatistics and Data Management. Short-term courses include training in research methods, statistics, disease surveillance, disability, and change management. In addition, IIPH-H assists in the implementation of national programs, such as the National Rural Health Mission as well as state and regional public health initiatives. Its activities receive support from Indian Council for Medical Research, National Health & Medical Research Council of Australia, Engineering & Physical Sciences Research Council of UK, Wellcome Trust, The Queen Elizabeth Diamond Jubilee Trust, UNICEF, DST, WHO,

CBM and Sightsavers. The Indian Institute of Public Health, Hyderabad (IIPHH) and Dr. NTR University of Health Sciences, Vijayawada, Andhra Pradesh, in an exclusive agreement, announced admissions to a specialised Masters in Public Health (MPH) in 2015. The course commenced in December 2015.

In February 2015, Shri K Chandrashekar Rao, Honourable Chief Minister of Telangana State performed the auspicious Bhoomi Puja for the construction of the permanent campus of the Indian Institute of Public Health - Hyderabad (IIPH-H), PHFI's southern regional campus at Rajendranagar, Rangareddy District, Telangana State.

#### **INDIAN INSTITUTE OF PUBLIC HEALTH - (IIPH-D), DELHI-NCR**

The Indian Institute of Public Health-Delhi (IIPH-Delhi) commenced operations in November 2008 with launch of the Post Graduate Diplomas in Health Economics, Health Care Financing, and Health Policy Program targeted at mid-career health professionals. Since then, the institute has also expanded its activities in distance learning, training, research, advocacy and policy support in different areas of public health.

the state. Faculty members at IIPH-B are among the common pool of PHFI training division for providing trainers to facilitate various workshops and training programs.

IIPH-B currently trains government doctors from Odisha and Chhattisgarh and self-sponsored candidates through its PG Diploma in Public Health Management. With the aim of creating a framework for a Centre for Tribal Health and UHC, IIPH-B has established important linkages with the largest residential tribal centre in Bhubaneswar, which is a part of Kalinga Institute of Social Study and houses over 15,000 students from tribal districts of eastern India.

#### **INDIAN INSTITUTE OF PUBLIC HEALTH - SHILLONG (IIPH-S), MEGHALAYA**

IIPH-S commenced its operations from 2015 as the fifth institute of the IIPH network. The IIPH in Shillong has been established to redress the limited institutional and systems capacity in the area of public health in the northeast region of India which is largely populated by indigenous peoples, with over 160 Scheduled Tribes (STs). Established in collaboration with the Government of Meghalaya (GoM), IIPH-S will serve the entire North-East region as its primary focus



while being national in character and remain actively linked with other IIPHs. Currently, the institution has started functioning from an interim campus in central Shillong, at a facility made available by the Government of Meghalaya. A permanent campus is planned, for which GoM has provided 22.3 acres of land in Mawdiangdiang, New Shillong.

IIPH-D offers Post Graduate Diplomas in Public Health Management; Integrated MSc and PhD in Clinical Research, as well as Post Graduate Diploma and Certificate Courses through distance education in Public Health Nutrition and Epidemiology, among other courses. It also conducts short-term training programs and workshops in fields related to public health. IIPH-D's research extends across the domains of acute and chronic diseases, tobacco control, nutrition, maternal and child health, health systems and health policy. Its activities have received funding support from the Ministry of Health and Family Welfare, Department of AYUSH, the Indian Council of Medical Research, the Central Council for Research in Unani Medicine, the Department of Science & Technology, the Medical Council of India, the United Nations Children's Fund, and the World Health Organisation, among others.

In January 2016, IIPH – Delhi and Sree Chitra Tirunal Institute for Medical Sciences & Technology (SCTIMST), Trivandrum (an Institute of National Importance under the Department of Science and Technology, Govt. of India), signed a formal Memorandum of Understanding (MoU) for offering Master of Public Health (MPH) programme at the Indian Institute of Public Health– Delhi. The programme will be launched by IIPH – Delhi in 2016.

### **INDIAN INSTITUTE OF PUBLIC HEALTH - BHUBANESWAR (IIPH-B), ODISHA**

IIPH-B commenced its academic activities from August 2010. A key objective of the Institute has been to implement the vision of PHFI by linking public health advocacy, teaching, research, and practice. IIPH-Bhubaneswar is closely working with the Government of Odisha in providing technical inputs and support to strengthen the public health delivery system and to facilitate development of a public health cadre in





Health Literacy session on nutrition in Uttar Pradesh. Photo Credit: Ajay Singh, PHFI

# 4


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## ACTION ORIENTED PUBLIC HEALTH EDUCATION & TRAINING

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**Multi-disciplinary,  
competency-driven curriculum,  
health systems connectivity,  
innovative pedagogy are our  
watermark**

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 Capacity building in public health is the primary mandate of PHFI. Besides the ongoing formal academic courses, PHFI also addresses the need for conducting short term courses and/or in-service training on various areas of topical importance in public health.

Launching their first teaching programme in 2008-09 with a Post Graduate Diploma in Public Health Management (PGDPHM), the IIPHs now offer two Masters of Public Health (MPH) programmes, one at IIPH-Gandhinagar University ( a university under the State Act) and the another at IIPH-Hyderabad (in collaboration with NTR University of Health Sciences, Andhra Pradesh). Apart from MPH, three post-graduate diploma courses offered on campus. The PGDPHM evolved in partnership with other academic institutions in India under the aegis of the National Rural Health Mission (NRHM), currently

called the National Health Mission of the Ministry of Health and Family Welfare (MoHFW), Government of India.

PHFI's academic partnerships exist across India for the on - campus and distance learning programmes. These include the PGDPHM Consortium (PHFI provides leadership to a consortium of 10 institutes offering PGDPHM program supported by MoHFW, GoI) The partnership also includes IIPH-Hyderabad & Government of Karnataka Collaboration (technical support for PGDPHM program); PHFI-AcSIR Collaboration (Integrated MSc & PhD programs in Health Informatics & Clinical Research); IIPH-H - Dr NTR University of Health Sciences Collaboration (for MPH program), IIPH-Delhi - Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) Collaboration (for MPH program). An Academic Advisory Committee, comprising external experts provides guidance. It is presently chaired by Prof. Abraham Joseph, former Dean of Christian Medical College, Vellore.

The Placement Cell at PHFI has enabled the students, subsequent to the completion of their programmes

opportunities for employment in the development sector - NGOs/ INGOs/and CSR divisions in corporates - hospitals, clinical research organisations, academic institutes, government organisations, research organisations, public health programmes and other organisations of relevance.

The Training Division at PHFI was established in 2008 with the goal of meeting short term training needs of public health practitioners and professionals of health and allied sectors in India. PHFI has, since then, conducted several training programmes customised to cater to the identified needs of health service personnel from different states, young health researchers, physicians in practice, and national health programme managers and consultants.

PHFI also conducts training programmes for primary health care physicians with the objective of enhancing their core skills and competencies in the areas of evidence based diabetes management, Gestational Diabetes Mellitus, Diabetes Retinopathy, Prevention and Management of Diabetes and Cardiovascular Disease and Management of Thyroid Disorders.

# ACADEMIC PROGRAMMES

Two Masters programmes in Public Health and three on-campus Diploma programmes with PG Diploma in Public Health Management (NRHM linked) as flagship programme

Two Degree (Integrated MSc-PhD) courses in partnership with Academy of Scientific & Innovative Research (AcSIR)

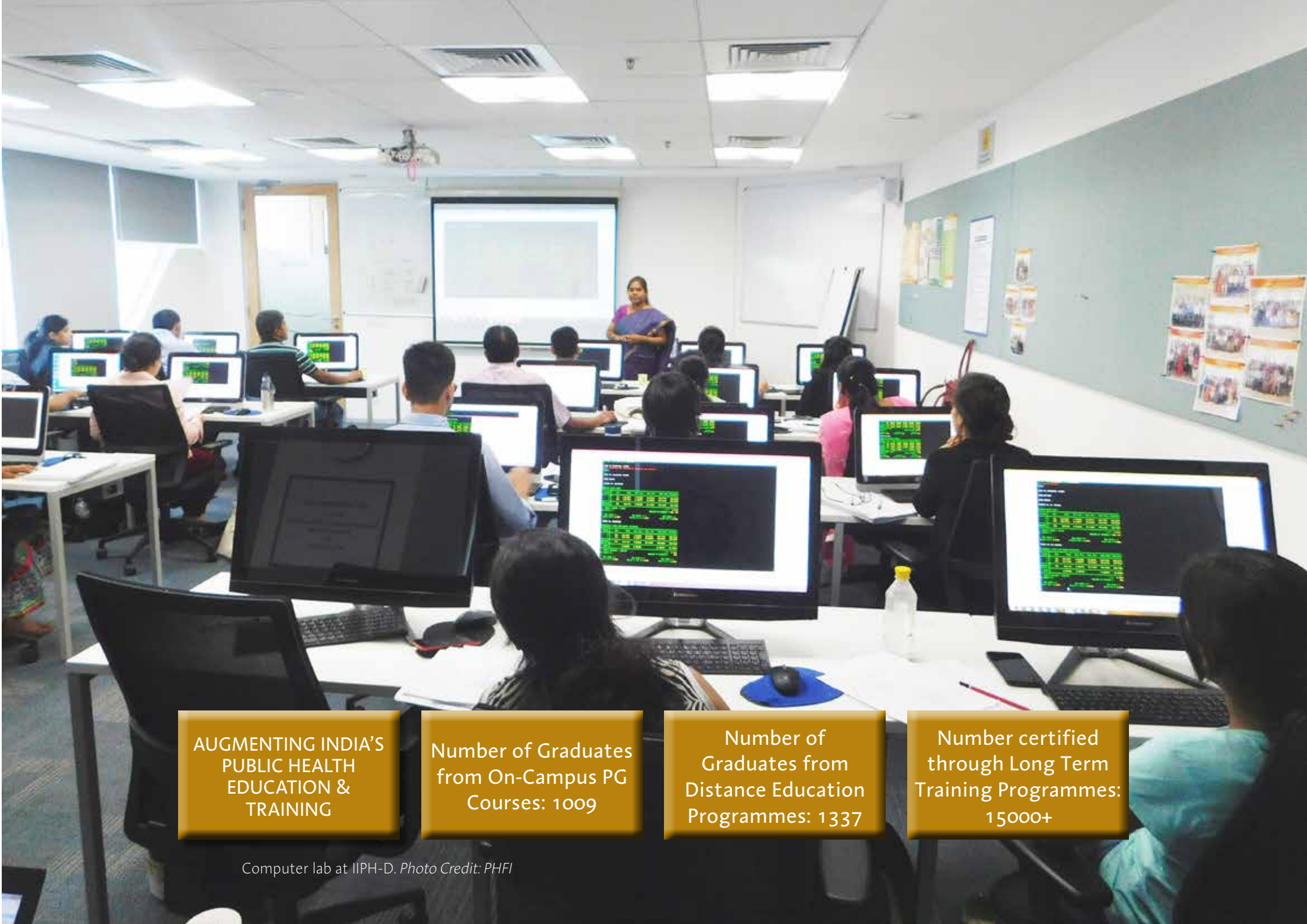
16 Distance Learning programmes and 50 plus short term competency development programmes being delivered

Joint MPH programme launched in 2015 with University of Hyderabad and University of Gujarat

1000 plus public health professionals have graduated from on campus programmes (65% sponsored by state governments), 17,000 plus participants trained in short term programmes and over 1300 through distance learning and scaling up rapidly (figures since 2008)

120 plus multi-disciplinary faculty pool (core and adjunct); largest in one institution in India

97% placements of students for the 2013-2014 batch



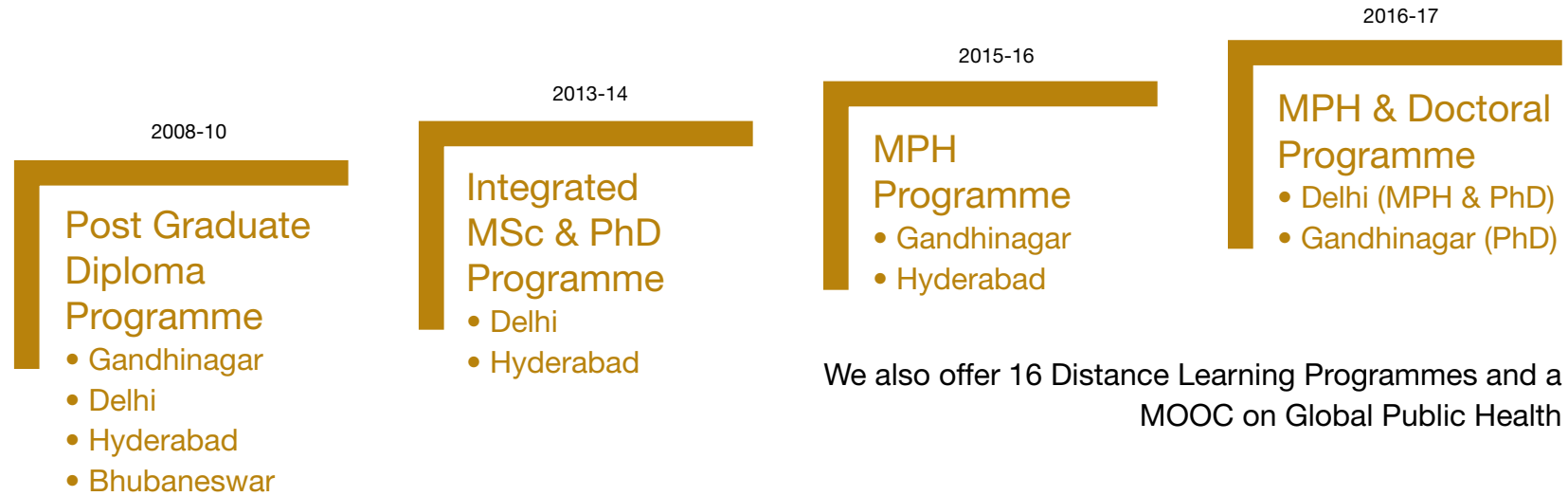
AUGMENTING INDIA'S  
PUBLIC HEALTH  
EDUCATION &  
TRAINING

Number of Graduates  
from On-Campus PG  
Courses: 1009

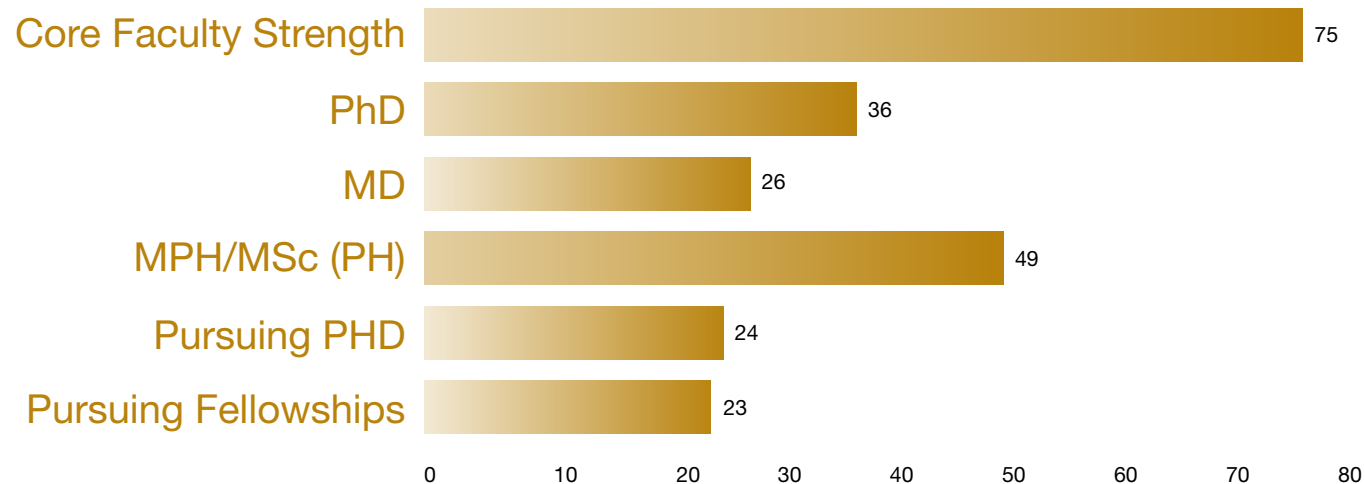
Number of  
Graduates from  
Distance Education  
Programmes: 1337

Number certified  
through Long Term  
Training Programmes:  
15000+

# SCALE UP OF PHFI's ON-CAMPUS PROGRAMS



# INDIAN INSTITUTES OF PUBLIC HEALTH : FACULTY STRENGTH



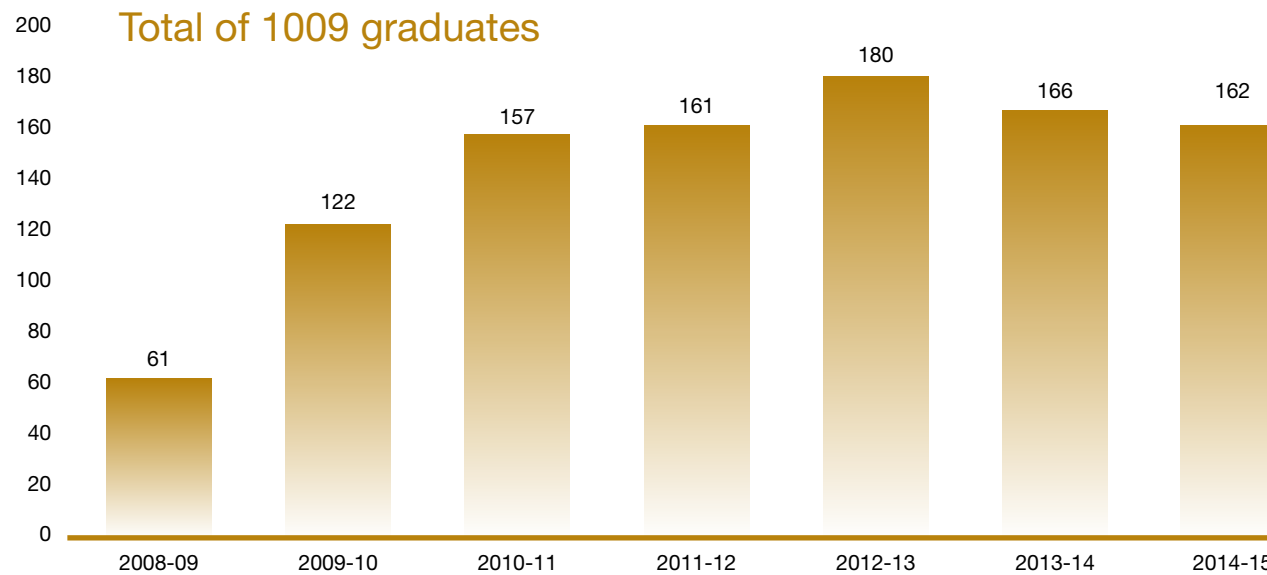


Class in session at IIPH-D. Photo Credit: PHFI

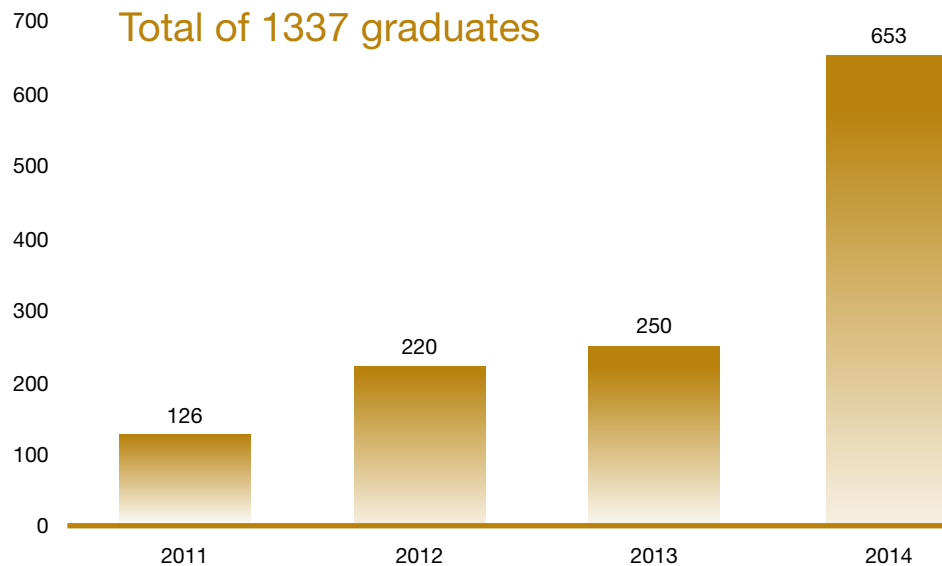


Orientation session for students supervised by IIPH faculty. *Photo Credit: PHFI*

## GRADUATES FROM IIPHs-ON-CAMPUS PROGRAMMES



## GRADUATES FROM IIPHs - DL PROGRAMMES



“ The experience at IIPH has been so unique [and] of its kind, and I feel very happy about it. The mix of tight and demanding programme with carefully selected courses, and well qualified and experienced faculty has helped me to acquire broader understanding of public health issues, and health policy and economics. I never forget the sweet memories of my colleagues, and the warm and welcoming environment of the whole faculty and staff. I wish to see and hear IIPH extend its programmes to offer PhD at the international level.

- **MS.YEGILENESH HABTE**, student from Ethiopia,  
2010-11 Batch, Post-Graduate Diploma in Health Economics, Health Care Financing and Health Policy

I thought of doing my public health education from IIPH considering the recognition it enjoys for its academic excellence. Other aspects which I considered were - the course curriculum, practical exposure, expert faculty members, etc. I will always recommend PHFI for its academic excellence, value-based education and providing a conducive environment for overall skill development.

- **MS.CHINMAYI BORKAR**,  
2011-12 Batch, Post Graduate diploma in Public Health Management

It is my privilege to be associated with IIPH. The unique internship programme in the PGDCR course helps the student get practical exposure in the field. The course fee is most reasonable and affordable. The guidance by faculty members is incomparable.

- **MS.PURVI PRADHAN**,  
2010-11 Batch, Post Graduate Diploma in Clinical Research ”



Convocation of the Indian Institute of Public Health Delhi (IIPHD) 30th July 2015

“The first  
wealth is health.”

— EMERSON

“Take care of your  
health so that you  
may die young as late  
as possible.”

— ANON



**IT STARTS WITH A SMALL, FIRST STEP. A REGULAR WALK EVERY MORNING KEEPS YOU ACTIVE AND HELPS PREVENT HYPERTENSION AND MANY HEALTH PROBLEMS.**

Swasthi family, mascot for the Healthy India website which ran a series of health preventive messages to encourage a healthy lifestyle



Field Researchers conducting community resource mapping exercise



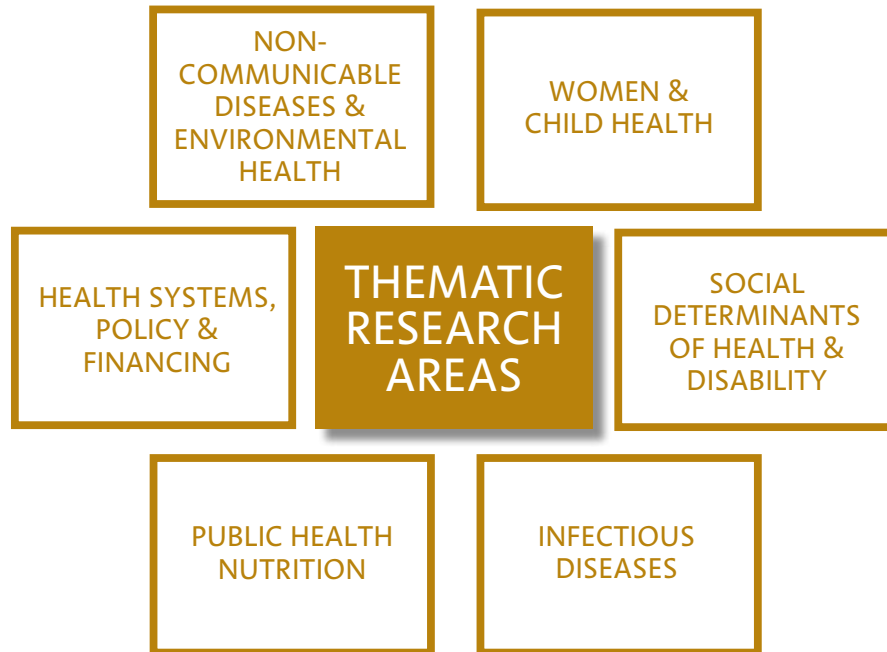
Community health worker using tablet-computer based SSS application (Electronic Data Capture software) in Solan, Himachal Pradesh as part of the Solan Surveillance Study (SSS) undertaken by PHFI

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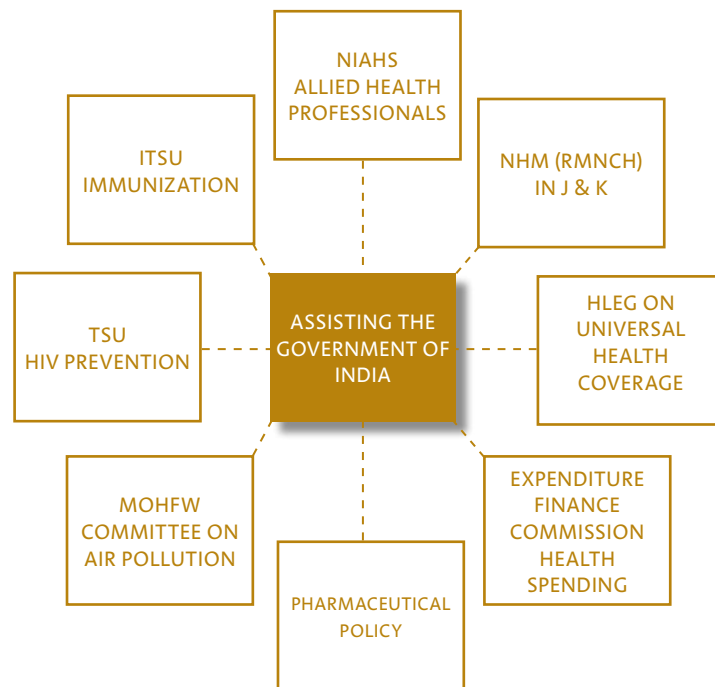
POLICY AND  
PROGRAMME RELEVANT  
RESEARCH

# RESEARCH AT PHFI

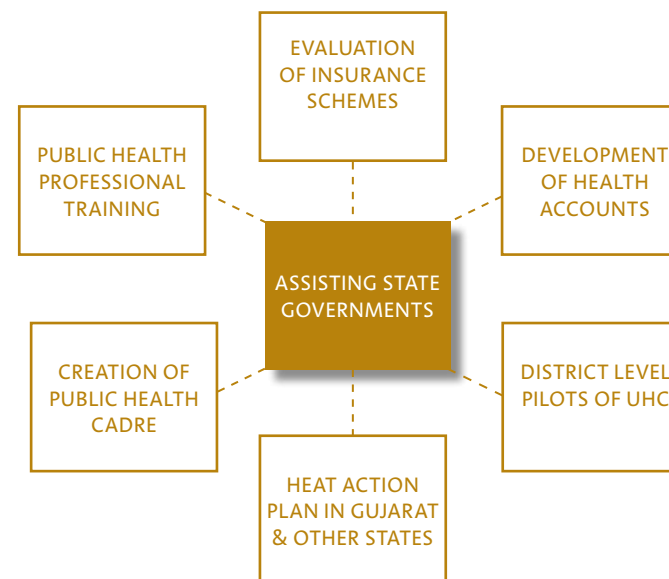


Since its inception PHFI has worked to establish a robust evidence base for public health, in partnership with national and international institutions, by advancing policy and programme relevant research in prioritised health areas. PHFI has been undertaking projects in multiple areas including epidemiology and control of infectious and chronic diseases, maternal and child health, health systems, and social determinants of health. PHFI recognises scientific curiosity as fundamental to research and endeavours to cultivate an enabling environment for faculty, staff and students, to undertake studies in various disciplines of public health and drive the research agenda at PHFI and IIPs.

A pan - PHFI Research Management Committee (RMC) helps to steer and support research, as an organised activity. An independent (Research Advisory Committee), consisting of eminent external experts, helps to provide peer review and strategic



counselling. The RAC is presently chaired by Professor Barry Bloom, former Dean of the Harvard school of Public Health. To ensure the ethical aspects of research are adhered to, an Institutional Ethics Committee (IEC) has been established to review all proposals for research, provide guidance, and promote ethical conduct in all research undertaken at PHFI. The PHFI-IEC provides guidance and promotes ethical conduct in all research undertaken by researchers at PHFI.



PHFI has a portfolio of over 100 ongoing research and implementation projects, with several multi-centric and multi-stakeholder studies. Partners include international academic institutions, central and state governments, community-based organisations and the private sector. Research efforts undertaken by PHFI have led a total of 1926 publications till November 2015, with an average impact factor of 5.3. Currently, PHFI has undertaken over 350 research projects, several of them involving multiple stakeholders.

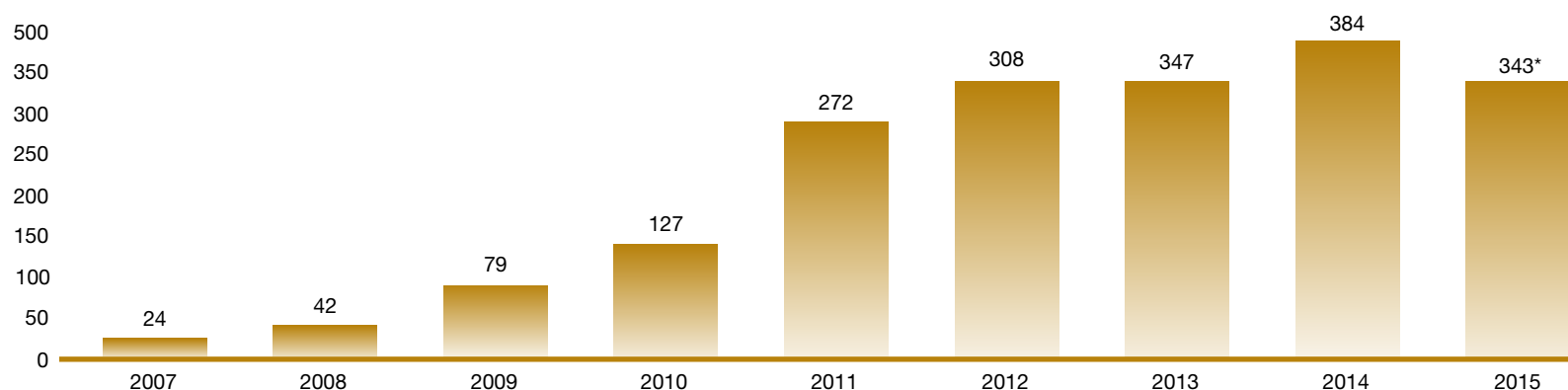


Health workers prepare immunisation records of children in the community

# RESEARCH IMPACT: PEER REVIEWED PUBLICATIONS

Total Publications - 1926

Average Impact Factor - 5.3



\* Indexing in progress

PHFI has set up four Centres of Excellence to raise awareness and strengthen research, training and education in high priority areas of public health in India

CENTRE FOR CHRONIC  
CONDITIONS AND  
INJURIES (CCCI)

SOUTH ASIA CENTRE  
FOR DISABILITY  
INCLUSIVE  
DEVELOPMENT &  
RESEARCH  
(SACDIR)

RAMALINGASWAMI  
CENTRE ON EQUITY  
AND SOCIAL  
DETERMINANTS OF  
HEALTH

CENTRE FOR  
EXCELLENCE IN  
ENVIRONMENTAL  
HEALTH  
(UPCOMING)



ANM examines a child during home visit in West Bengal



“He that prevents a disease  
is the safest physician.”

— THOMAS FULLER

# BUILDING EVIDENCE ON STATE - LEVEL DISEASE BURDEN ESTIMATES IN INDIA

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**First of its kind State level  
disease burden estimation  
in India is being undertaken  
by PHFI and partners**

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India has been going through a major epidemiological transition over the past 25 years, suffering from the double burden of increased mortality and morbidity through Non-Communicable Diseases and Injuries, and a sustained high proportion of infectious diseases including Tuberculosis and HIV/AIDS. However, there are likely to be substantial variations in the disease profiles, among the different population groups and between the states.



LEFT TO RIGHT Prof. K Srinath Reddy (PHFI), Prof. Chris Murray (IHME), Baron Peter Piot (LSHTM), Dr Soumya Swaminathan (ICMR), Dr JVR Prasad Rao (UNAIDS), Dr Poonam Khetrapal Singh (WHO), Mr. K.B Agarwal (MoHFW), Prof Lalit Dandona (PHFI)

Recognising that national-level estimates do not provide enough detail for targeted action, The Indian Council of Medical Research (ICMR), the Public Health Foundation of India (PHFI) and the Institute for Health Metrics and Evaluation (IHME) at the University of Washington have launched a collaborative initiative for state-level disease burden estimation in India. The development of reliable sub-national estimates

under this programme will be crucial in developing an informed public health response to address National and State health needs.

With the evidence being generated across health areas, PHFI will work with a network of academic partners and policy makers across India to improve health indicators in prioritised health areas.

# The Telegraph

calcutta, india

dition | Tuesday , October 13 , 2015 | Google™ Custom Search

Front Page > Nation > Story

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Lens on states' disease burden

Our Special Correspondent

**New Delhi, Oct. 12:** A consortium of government and academic institutions has launched India's first-ever exercise to estimate the burden of each of over 130 causes of ill-health and premature deaths in states, an initiative that experts say will help guide state-specific health policies.

The Indian Council of Medical Research and the Public Health Foundation of India, collaborating with the University of Washington, plan to generate state-level estimates of ill-health and premature deaths from a range of causes - from cancers to cirrhosis-linked to alcohol abuse, and infections to suicides.

"State-level estimates are important because national-level data are unable to capture nuances needed for state-specific actions," said Lalit Dandona, professor at the Delhi-based Public Health Foundation of India and director of the exercise.

The researchers will rely on multiple sources of data - research studies, state-level health surveys and, wherever available, hospital-based and community-based analysis of disease burden - and a modelling tool to generate estimates for as many states as possible.

Preliminary results for states' disease burden are expected by end-2016, the researchers said. "This will be a continuous exercise. We expect the estimates to improve over time," said Dandona.

A similar exercise at the national level has already revealed changing patterns in disease burdens - for instance, in 2013, coronary heart disease had taken over as the leading cause of ill-health in India from lower respiratory infections in 1990.

Chronic obstructive pulmonary disease - an illness linked to smoking and exposure to air pollution - had emerged the second leading cause of ill-health in 2013, moving up from eighth position two decades ago.

At the national level, high blood pressure, abnormal blood sugar levels and air pollution have emerged the top three risk factors for ill-health in 2013, compared to childhood under-nutrition, unsafe drinking water and poor sanitation two decades ago.

"But there is a substantial variation in disease burden trends that we need to understand at the state level to plan responses specific to local situations," said Soumya Swaminathan, director-general of the Indian Council of Medical Research.

The researchers say reliable estimates will allow financial and health policy makers to judiciously target resources to deliver "what needs to be done where". The absence of state-specific estimates could lead to a mismatch between disease burden and allocation of resources.

The India exercise is part of the so-called Global Burden of Disease study initiated by scientists at the University of Washington. "This project could generate some meaningful information but only through adequate caution that the data used in the analysis is statistically reliable," said a senior health statistician who requested not to be named. "Finding reliable data in India is a difficult issue and sample size is important."

The statistician cited an independent study that had picked too small a sample and had portrayed the number of stillbirths in a community as misleadingly high.

**Summary** The Global Burden of Disease Study 2013 (GBD 2013) aims to bring together all available epidemiological data using a coherent measurement framework, standardised estimation methods, and transparent data sources to enable comparisons of health loss over time and across causes, age-sex groups, and countries. The GBD can be used to generate summary measures such as disability-adjusted life-years (DALYs) and healthy life expectancy (HALE) that make possible comparative assessments of broad epidemiological patterns across countries and time. These summary measures can also be used to quantify the component of variation in epidemiology that is related to sociodemographic development.

**Methods** We used the published GBD 2013 data for age-specific mortality, years of life lost due to premature mortality (YLLs), and years lived with disability (YLDs) to calculate DALYs and HALE for 1990, 1995, 2000, 2005, 2010, and 2013 for 188 countries. We calculated HALE using the Sullivan method; 95% uncertainty intervals (UIs) represent uncertainty in age-specific death rates and YLLs per person for each country, age, sex, and year. We estimated DALYs for 306 causes for each country as the sum of YLLs and YLDs; 95% UIs represent uncertainty in sociodemographic status and the total fertility rate. We quantified patterns of the epidemiological transition with a composite indicator of sociodemographic status in which we constructed from income per person, average years of schooling after age 15 years, and the total fertility rate and mean age of the population. We applied hierarchical regression to DALY rates by cause across countries to decompose variance related to the sociodemographic status variable, country, and time.

**FINDINGS** Worldwide, from 1990 to 2013, life expectancy at birth rose by 6·2 years (95% UI 5·6–6·6), f (65·0–65·6) in 1990 to 71·5 years (70·7–71·9) in 2013, HALE at birth rose by 5·4 years (4·9–5·8), f (54·5–59·1) in 1990 to 62·3 years (59·7–64·8), total DALYs fell by 3·6% (0·3–7·4), and age-standardised (300 000 people fell by 26·7% (24·6–29·1). For communicable, maternal, neonatal, and nutritional c DALY numbers, crude rates, and age-standardised rates have all declined between 1990 and 2013, w communicable diseases, global DALYs have been increasing. From 2005 to 2013, the number of DAL standardised DALY rates declined during the same period. By 2005 to 2013, the number of DAL most specific non-communicable diseases, including cardiovascular diseases and neoplasms, in ad food-borne trematodes, and leishmaniasis; DALYs decreased for nearly all other causes. By 2013 causes of DALYs were ischaemic heart disease, lower respiratory infections, cerebrovascular dis neck pain, and road injuries. Sociodemographic status explained more than 50% of the variance i urogenital, blood, and endocrine diseases; unintentional injuries; and self-harm and int neonatal disorders; nutritional deficiencies; other communicable, maternal, neonatal, and nu musculoskeletal disorders; and other non-communicable diseases. However, sociodemographic st about 10% of the variance in DALY rates for cardiovascular diseases; chronic respiratory diseas musculoskeletal disorders; and self-harm and intentional injuries. The increase in life expectan predictably increased sociodemographic status was associated with a shift in burden from YLL declines in YLLs and increases in YLDs from musculoskeletal disorders, neurological disorder substance use disorders. In most country-specific estimates, the increase in life expectancy was HALLE. Leading causes of DALYs are highly variable across countries.

[illegible]

**Funding** Bill & Melinda Gates Foundation.



## Summary

**Primary**  
**Background** Up-to-date evidence on levels and trends for age-sex-specific all-cause and cause-specific mortality is essential for the formation of global, regional, and national health policies. In the Global Burden of Disease Study 2013 (GBD 2013), we estimated yearly deaths for 188 countries between 1990, and 2013. We used the results to assess the epidemiological convergence across countries.

**Methods** We estimated age-sex-specific all-cause mortality using the GBD 2010 methods with some refinements to improve the quality of the data. We used a database of vital registration, survey, and census data. We generally estimated cause of death using a hierarchical autopsy literature strategy, and we improved the accuracy of the estimates by using verbal autopsy data to adjust for cultural and regional differences. We used the addition of more data to the database of vital registration, survey, and census data to improve the accuracy of the estimates. We used six different modeling techniques across the 20 causes of death and 28 age-sex categories. We used a combination of model-based estimates and vital registration data to estimate the rates of convergence of diarrhoea and other enteric diseases. We used a combination of model-based estimates and vital registration data to estimate the rates of convergence of diarrhoea and other enteric diseases. We used a combination of model-based estimates and vital registration data to estimate the rates of convergence of diarrhoea and other enteric diseases.

**Results** We estimated age-sex-specific all-cause mortality using the GBD 2010 methods with some refinements to improve the quality of the data. We used a database of vital registration, survey, and census data. We generally estimated cause of death using a hierarchical autopsy literature strategy, and we improved the accuracy of the estimates by using verbal autopsy data to adjust for cultural and regional differences. We used the addition of more data to the database of vital registration, survey, and census data to improve the accuracy of the estimates. We used six different modeling techniques across the 20 causes of death and 28 age-sex categories. We used a combination of model-based estimates and vital registration data to estimate the rates of convergence of diarrhoea and other enteric diseases. We used a combination of model-based estimates and vital registration data to estimate the rates of convergence of diarrhoea and other enteric diseases. We used a combination of model-based estimates and vital registration data to estimate the rates of convergence of diarrhoea and other enteric diseases.

**Conclusions** We estimated age-sex-specific all-cause mortality using the GBD 2010 methods with some refinements to improve the quality of the data. We used a database of vital registration, survey, and census data. We generally estimated cause of death using a hierarchical autopsy literature strategy, and we improved the accuracy of the estimates by using verbal autopsy data to adjust for cultural and regional differences. We used the addition of more data to the database of vital registration, survey, and census data to improve the accuracy of the estimates. We used six different modeling techniques across the 20 causes of death and 28 age-sex categories. We used a combination of model-based estimates and vital registration data to estimate the rates of convergence of diarrhoea and other enteric diseases. We used a combination of model-based estimates and vital registration data to estimate the rates of convergence of diarrhoea and other enteric diseases. We used a combination of model-based estimates and vital registration data to estimate the rates of convergence of diarrhoea and other enteric diseases.

**Findings** Global life expectancy for both sexes increased from 47.1 years in 1990 to 71.5 years in 2013, while the male-to-female ratio increased from 1.05 to 1.02. The increase in life expectancy was driven by a decrease in mortality from all causes, with the largest decreases in mortality from communicable, maternal, neonatal, and nutritional causes. The increase in life expectancy was driven by a decrease in mortality from all causes, with the largest decreases in mortality from communicable, maternal, neonatal, and nutritional causes. The increase in life expectancy was driven by a decrease in mortality from all causes, with the largest decreases in mortality from communicable, maternal, neonatal, and nutritional causes.

See [Comment](#) page 92

The Indian Council of Medical Research (ICMR), the Public Health Foundation of India (PHFI) and the Institute for Health Metrics and Evaluation (IHME) at the University of Washington under the aegis of Ministry of Health and Family Welfare, have launched a collaborative initiative on state-level disease burden estimation in India.

In this effort, the robust methods of the Global Burden of Disease (GBD) study, developed by a global network of researchers coordinated by IHME, will be utilized to generate rigorous estimates of all the major drivers of health loss at the state level in India.



Source Name: The Public Health Foundation of India (PHFI)

## FIRST-OF-ITS-KIND COLLABORATIVE INITIATIVE ON STATE-LEVEL DISEASE BURDEN ESTIMATION IN INDIA LAUNCHED

The Indian Council of Medical Research (ICMR), the Public Health Foundation of India (PHFI) and the Institute for Health Metrics and Evaluation (IHME) at the University of Washington, USA in collaboration with the Ministry of Health and Family Welfare, Government of India, to generate State-level Disease Burden and risk factors estimates to improve health programmes and planning in India

Oct 12, 2015 17:20 PM

New Delhi, India

India has been going through a major epidemiological transition over the past 25 years. Health loss due to non-infectious conditions such as heart disease, stroke, diabetes and road traffic has increased massively, and the burden due to lower respiratory infections, still remains unacceptably high. The extent of the burden due to these major conditions varies across the various population groups and the states of India. National-level estimates do not exist. Hence reliable sub-national estimation of disease burden in India is crucial for improving population health.

The Indian Council of Medical Research (ICMR), the Public Health Foundation of India (PHFI) and the Institute for Health Metrics and Evaluation (IHME) at the University of Washington under the aegis of the Government of India have launched a collaborative initiative on state-level disease burden estimation. The robust methods of the Global Burden of Disease (GBD) study, developed by IHME, will be utilized to generate rigorous estimates of all the major drivers of disease burden. To disseminate the findings of the scientific papers, the initiative will produce multilevel dissemination materials to raise the discourse and monitor changing disease trends. State-of-the-art GBD estimates will bring to life the initiative's findings. This will allow a variety of contrasts between

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## Heart and respiratory diseases are India's biggest killers

By NEETU CHANDRA SHARMA

PUBLISHED: 22:37 GMT, 12 October 2015 | UPDATED: 22:42 GMT, 12 October 2015



Heart and respiratory diseases have gradually become silent killers for Indians, according to the Global Burden of Disease Study. High blood pressure, pollution, smoking and alcohol, have become risk factors that will further cut life-expectancy of Indians. Highlighting the epidemiological transition over the past 25 years in India, the study states that the major causes of deaths were lower respiratory infections (58,575), diarrhoeal diseases (45,528) and pre-term birth complications (43,528).



# DH

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You are here: Home » National » Govt begins state-level disease burden data

## Govt begins state-level disease burden data

New Delhi, Oct 13, 2015, DHNS:

With the country witnessing major epidemiological transformation, the central government has begun a new programme to generate disease burden data from each state to plan state-specific intervention strategies.

"The first set of reports would come out in 2016 and we would continue to refine these reports for the next five years. This would make planning of health programmes more specific and target oriented," Lalit Dandona, distinguished research professor at the Public Health Foundation of India, who spearheads the project told Deccan Herald.

The PFHI has joined hands with the Indian Council of Medical Research and Institute for Health Metrics and Evaluation (IHME) at the University of Washington for the project.

India's huge population makes it the best place to generate state-level disease burden models. Over the last 25 years, the burden of premature death and health loss due to non-infectious conditions like heart disease, stroke, diabetes, chronic obstructive lung disease and road traffic increased massively while the burden due to lower respiratory infections, tuberculosis, diarrhoea and neonatal deaths decreased.

# ENABLING INDIA'S MILLIONS TO HAVE ACCESS TO MEDICINES

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**PHFI is in the forefront  
of policy research to  
make essential medicines  
accessible and affordable**

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*P*HFI has contributed significantly through cutting-edge research on issues related to access to medicines, vaccines and technology. Work in this space includes tracking the public expenditure of health facilities, looking at the drug procurement and distribution system, generating evidence on access to medicines in India, examining the role of pharma companies in facilitating access to medicines, and identifying socio-economic correlates and determinants of unequal access to immunisation in India. PHFI through its research has provided recommendations on pharmaceutical pricing policy to the Ministry of Health and Family Welfare, Ministry of Corporate Affairs, Ministry of Chemicals and Fertilisers, and the National Pharmaceutical



Project: Strengthening Eco-System for Sustainable and Inclusive Health Financing In India  
Supported by: United States Agency for International Development (USAID). Photo credit: PHFI

Pricing Authority. It has also advised the Competition Commission of India on mergers and acquisitions in the pharmaceutical sector, and the Planning Commission on the development of the 12th Five Year Plan.

As India prepares to roll out its ambitious programme to achieve universal health coverage (UHC), PHFI is undertaking

- Assessment of drug procurement and distribution models in 8 states. This is expected to serve as a baseline for access to provision of essential medicines

- Identification of key costs of an essential health package for UHC roll out in the districts of 8 states now ready for baseline data collection.

In addition, PHFI has also recently assessed the Rajasthan Free Medicine Initiative of the State Government and the Jan Aushadhi Yojana of Ministry of Chemicals and Fertilizers, Government of India.

# THE HINDU BusinessLine

BY INVITATION

## More tears for Maggi than for cuts in govt's health spends



INDRANIL MUKHOPADHYAY

### On a slippery slope

Centre's spending on health as % of GDP



Source: Union and State Budgets, RBI (www.indiabudget.nic.in)

### State of the spends

Union and State govt expenditure on health



INDRANIL MUKHOPADHYAY

India's expenditure on health is just a little over 1% of its income

hindustantimes | nation | 11

June 26, 2015

what's next?

## Transforming India's healthcare

**PRESCRIPTION** Improving facilities and access to medicines and professionals should be the priority of health spending

**W**hat the Prime Minister announced in his Independence Day address that health would be among the fastest growing sectors in the country is a welcome sign. It is a sign that the government is taking a long-term view of health and that it is committed to making health a priority. The government's health policy should be to ensure that health is a priority for all, not just for the rich. It should be to ensure that health is a priority for all, not just for the rich. It should be to ensure that health is a priority for all, not just for the rich.

The government's health policy should be to ensure that health is a priority for all, not just for the rich. It should be to ensure that health is a priority for all, not just for the rich. It should be to ensure that health is a priority for all, not just for the rich.

**PUBLIC FINANCING OF HEALTH** WILL RISE FROM 1.05% TO 1.85% DURING THE 12TH PLAN.

Public financing of health, which was 1.05% of GDP in 2007-08, is expected to rise to 1.85% by 2016-17, according to the Union Budget for 2015-16. This is a significant increase, but it is still far below the 3% target set by the World Health Organization. The government should aim to reach this target by 2020.

The government should also aim to increase the share of health spending in the total health expenditure. In 2014-15, the share of health spending in the total health expenditure was 1.05%. This is a significant increase, but it is still far below the 3% target set by the World Health Organization. The government should aim to reach this target by 2020.

# NEWS & PUBLICATIONS

## Healthy Expectations From The Budget

Krishna D. Rao,  
Sr. Health Specialist, Public Health Foundation of India  
Email: kd.rao@phfi.org

Health budgets usually do not invoke much excitement or exception. For one, this budget is falling. Such events usually see a lull in public spending on health - till the general elections in 2014. On the other hand, before the general elections in 2014, the government was planning programs. Moreover, this is the first time a new Plan came in the wake of the 12th Plan. The recommendation for increased government spending on Health Care (UHC). To what extent will the government walk the talk and also 'walk the talk'?

Both the HLEG report and the new 12th Plan in public spending on health - till the general elections in 2014. Indeed, government spending needs to be kept to the 12th Plan's promise of about 1% of GDP. India has on

spending of health. This plan that the

BMJ

BMJ 2013;347:f4235 doi: 10.1136/bmj.f4235 (Published 2 August 2013)

## VIEWS & REVIEW

### PERSONAL VIEW

### Africa could learn from India's burgeoning pharmaceutical sector

Prohibitive drug costs are leading some African countries to try to enter the generic market. The world would do well to look at India's model, says **Sakthivel Selvaraj**

Sakthivel Selvaraj senior health economist, Public Health Foundation of India, New Delhi, India

India is the global pharmacy, producing and supplying essential drugs to over 100 countries. Its drug market is valued at \$10 billion, which more than 40%

sure they make use of its flexibilities. India signed the agreement in 2005.

African countries have complained that Indian generic drugs are too expensive. Wholesale prices of Indian generic drugs are 10-20% lower than those of branded drugs procured from outside India.

Indian countries have taken steps to ensure that procurement of drugs is more effective, and decentralised, and replicating this model in other countries.

With Africa, Morocco, and other countries, the Indian drug industry, because they are small manufacturers, can compete with large manufacturers.

India has been building more factories, and has been collaborating with African countries.

India has been producing generic drugs that produce generic drugs in particular.

India has been producing generic drugs that produce generic drugs in particular.

live  
mint  
& THE WALL STREET JOURNAL  
04 DECEMBER 2013

## Drug pricing conundrum

*The drugmakers benefited from a policy muddle that was directionless*

**Sakthivel Selvaraj**



To top the agenda of pharmaceutical industry interests, the policy is designed to allow drug makers to increase prices of unscheduled formulations by up to 10% annually. Photo: Mint

For over a year, the Indian government has been mulling over the precise methodology for capping prices for essential medicines. In 2012, the Department of Pharmaceuticals (DoP) moved away from the past practice of Cost-plus Based Pricing (CBP) to Market-Based Pricing (MBP) for 348 essential medicines under "price control".

The DoP basically allowed manufacturers to charge a profit over the cost of production. The new policy allowed manufacturers to charge a profit over the cost of production. The new policy allowed manufacturers to charge a profit over the cost of production.

live  
mint

## India must protect access to medicine

India needs to safeguard its vital interests in any trade agreement, the way other nations do

K Srinath Reddy, President PHFI



The pronouncements by the government, over the last year, that essential drugs would be made available free of cost at public healthcare facilities are now reflected in the 12th Five-Year Plan. Photo: Hemant Mishra/Mint

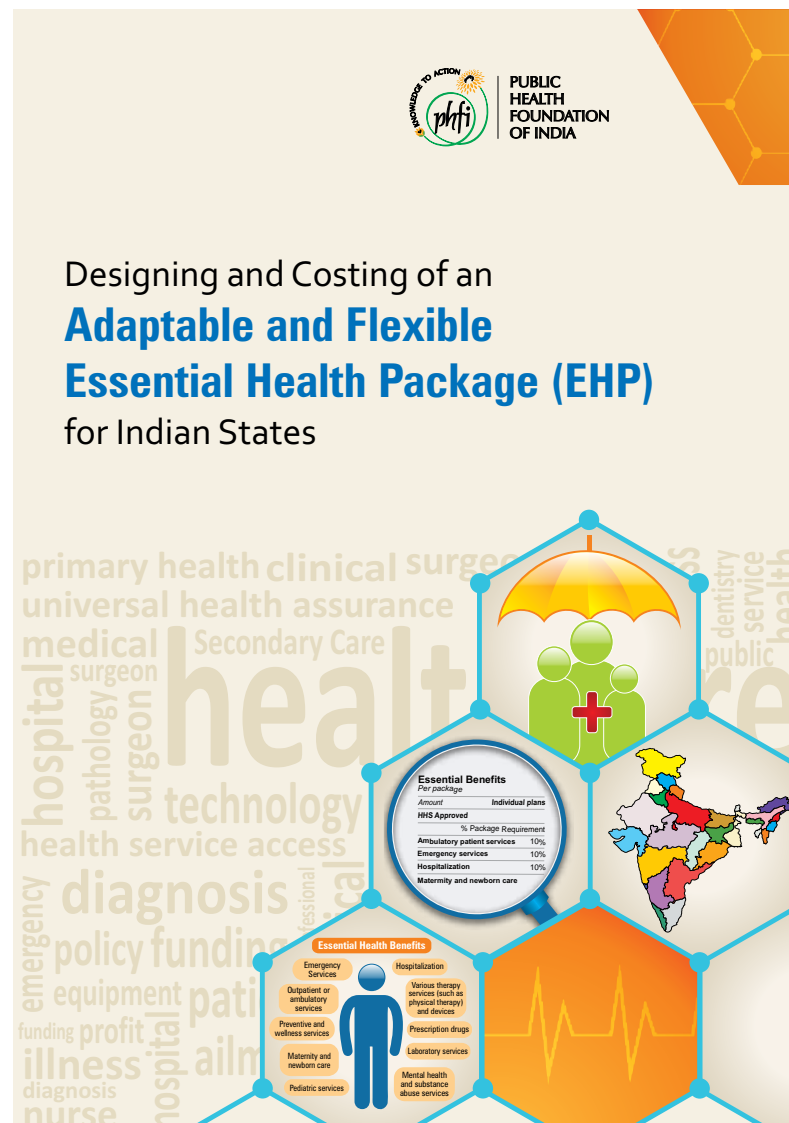
Is India committed to protecting access to essential medicines for its citizens? Since the 12th Five-Year Plan, the government has generated national and international debate around this. The production of generic drugs features prominently in the 12th Five-Year Plan.

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PHFI is engaged in building capacities and providing technical inputs in design, implementation, monitoring and evaluation in the area of health care financing to both central and state governments

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PHFI's report on Designing and Costing of an Essential Health Package (EHP) for Indian States



# PHFI'S WORK IN HEALTH FINANCING

*P*HFI is currently engaged in providing technical inputs to the Expenditure Management Commission (EMC), Ministry of Finance, Government of India. To achieve the intended objectives of the government, the primary mandate of the commission is to provide direction and recommendations for efficient resource utilisation and reallocation to the Government of India. In addition to education, the EMC has identified health as a focus area for reforms in the union government expenditure. This prioritising of health sector will lead to further emphasis on systematic and effective delivery of health care services. PHFI is also assisting the Governments of Tamil Nadu and Telangana in strengthening systems for Health Accounts.

# PREPARING INDIAN CITIES FOR EXTREME HEAT CONDITIONS

Recognizing the danger climate change poses for human health, IIPH-Gandhinagar, in partnership with the Natural Resources Defense Council (NRDC), has been focusing on the health impact of rising temperatures on vulnerable populations of western India. IIPH-Gandhinagar assessed the current vulnerability to extreme heat among Ahmedabad's general population. Additionally; they conducted focus group interviews of construction workers in order to assess the adaptive capacity of Ahmedabad's public health and health care delivery system to extreme heat conditions.

This work by IIPH-G and NRDC led to the launch of a Heat Action Plan in April 2013 by the Ahmedabad Municipal Corporation (AMC), with scale up to two



IIPH Gandhinagar University and NRDC led Heat Action Plan featured in the Indian pavilion at COP21, Paris



Smt. D Thara, Muncipal Commissioner for Ahmedabad releasing the Heat Action Plan developed by IIPH-G and NRDC

further cities in India envisioned in the next year or so. These recommendations have also fed into the National Disaster Management Authority's plans, as well as into the sub-mission on health of the Prime Minister's Council on Climate Change. The institute developed and enhanced public health interventions and healthcare delivery protocols and management strategies; advanced and calibrated an innovative heat-health early warning system for the Ahmedabad Municipal Corporation; worked with the local and

state governments to implement specific strategies. They also conducted workshops and trainings for stakeholders (hospitals, other medical providers and government staff) on early warning systems, internal government communications, planning for extreme heat events, community outreach and communication strategies. Implementation of the Heat Action Plan has already shown impact of reduced mortality during the last heat wave in Ahmedabad.

# NEWS



આકરા ઉનાળામાં લોકો માટે મ્યુનિ.એક્શન પ્લાન તૈયાર કર્યો

## હીટવેવ પ્લાન: પરબો ઊભી કરાશે, ગરમીથી રાહતના સૂચનો અપાશે

નવગુજરાત સમય > અમદાવાદ

અમદાવાદના ૨૦૧૫ના હીટ એક્શન પ્લાનની રજૂઆત કરવામાં આવી છે. આ સાથે દક્ષિણ એશિયાના ગરમીના બનાવો સામે તત્વપૂર્ણ પધ્ધતિ અને રક્ષણની વિસ્તરણ કરવામાં આવ્યું છે. એક્શન પ્લાન અંતર્ગત કેર પાણીની પરબો ઊભી કરવાના છે. ઉપરાંત શહેરમાં લગભગ ૪૩ ડિગ્રી સેલ્સિયસ થી વધુ તાપમાન જવાનું હશે ત્યારે મીડિયાના માધ્યમથી લોકોને વારંવાર જાણવામાં આવ્યું છે. જેના પગલે હવે દેશના અન્ય શહેરો પણ અમદાવાદ મોડલ એક્શન પ્લાનને અપનાવવા તૈયાર થયા હોવાનું જાણવા મળે છે. જેમાં વડોદરા, સુરત, રાજકોટ, દિલ્લી અને મહારાષ્ટ્રમાં પણ હીટવેવ અંગેનો એક્શન પ્લાન અમલમાં મુકવામાં આવનાર છે.

ગરમીનો પારો વધે ત્યારે લોકોને મુશ્કેલી ન પડે તે માટે કોર્પોરેશન શહેરમાં એનજીઓની મદદથી પીવાના કંપા પાણીની પરબો બનાવશે. જેથી ગરમીમાં લોકોને પાણી મળી રહે. ઉપરાંત ૪૩ ડિગ્રીથી વધુ તાપમાન જવાનું હશે ત્યારે મીડિયાના માધ્યમથી લોકોને વારંવાર જાણવામાં આવ્યું છે. જેના પગલે હવે દેશના અન્ય શહેરો પણ અમદાવાદ મોડલ એક્શન પ્લાનને અપનાવવા તૈયાર થયા હોવાનું જાણવા મળે છે. જેમાં વડોદરા, સુરત, રાજકોટ, દિલ્લી અને મહારાષ્ટ્રમાં પણ હીટવેવ અંગેનો એક્શન પ્લાન અમલમાં મુકવામાં આવનાર છે.

## ફૂટપાથ પરના હોર્ડિંગ્સના મુદ્દે રિવ્યુ પિટિશન હાઈકોર્ટે ફગાવી

અમદાવાદ, મંગળવાર - ગરમીના ઝરડામાં ફૂટપાથ પર આડેધડ લાગેલા હોર્ડિંગ્સના કારણે ગરમીથી રાહતના સૂચનો અપાશે. ગરમીના ઝરડામાં ફૂટપાથ પર આડેધડ લાગેલા હોર્ડિંગ્સના કારણે ગરમીથી રાહતના સૂચનો અપાશે. ગરમીના ઝરડામાં ફૂટપાથ પર આડેધડ લાગેલા હોર્ડિંગ્સના કારણે ગરમીથી રાહતના સૂચનો અપાશે.

## GDCRના નિયમોનું ઉલ્લંઘન કરીને વધુ હોર્ડિંગ્સ લગાવાતા બીજી કન્ટેમ્પ્ટ પિટિશન

બીજી તરફ કોર્ટેના આદેશના અનાદર કારણે ગરમીના ઝરડામાં ફૂટપાથ પર આડેધડ લાગેલા હોર્ડિંગ્સના કારણે ગરમીથી રાહતના સૂચનો અપાશે. ગરમીના ઝરડામાં ફૂટપાથ પર આડેધડ લાગેલા હોર્ડિંગ્સના કારણે ગરમીથી રાહતના સૂચનો અપાશે.



## Heat islands causing minimum temperature to rise

Jayashree Nandi, TNN | May 28, 2015, 01:09 AM IST

<http://timesofindia.indiatimes.com/city/delhi/Heat-islands-causing-minimum-temperature-to-rise/articleshow/47450098.cms>

NEW DELHI: More and more people are likely to die or suffer morbidity due to heat stress in the capital in the coming years.

According to a recent study by Centre for Atmospheric Sciences at IIT-Delhi, the diurnal temperature range (difference between the maximum and minimum temperature) is decreasing rapidly. The DTR for Delhi that was 12.48 degrees in 2001 has reduced to 10.34 degrees in 2011, indicating that the minimum temperature is steadily increasing. This is mainly due to the urban heat island (UHI) effect and massive urbanization over the years, the study revealed.

A UHI is usually an urban area, which is significantly warmer than its surroundings. Concrete surfaces that used to be permeable and moist start radiating heat forming an area or an island of high temperature. The IIT study by scientists Manju Mohan and Anurag Kanya also found that areas experiencing a DTR below 11 degrees accounted for only 26.4% in 2001 that increased to 65.3% in 2011.

Forested or canopied areas such as the Asola wildlife sanctuary or rural areas such as Ghuman Hera village, Mundhela Kalan and Kanjhawala village have not shown much difference in DTR since 2001. But areas such as Rohini, Dwarka, Vasant Kunj, IIT and

## OneWorld South Asia

Heat stroke deaths are tip of the iceberg

Dr Dileep Mavalankar

<http://southasia.oneworld.net/peoplespeak/heat-stroke-deaths-are-tip-of-the-iceberg-dr-dileep-mavalankar#VZTMwPmqgq>

Jul 01, 2015

Heat waves are likely to rapidly increase as climate change progresses, says Dr Dileep Mavalankar.

New Delhi: India is reporting thousands deaths from various states due to heat wave in May 2015, the second highest reported in any heat wave in India. This number may go up still. But many people and agencies are not aware that heat-related deaths are many times more than commonly-identified heat-stroke deaths. For example in 2003, Europe had a major heat wave which killed 70,000 people. Of those, direct heat stroke deaths were very few; most were deaths of older people with some chronic disease who died due to overheating of the body and failure of heart, circulation, lungs or kidneys.

India has weak registration of deaths, recording of cause of death and analysis of cause of deaths. This limits our ability to estimate the total number of deaths due to heat waves. What is widely reported are very obvious cases of "heat stroke," which happen due to direct exposure to heat on roads or at work. In such cases people die within hours of heat stroke. These are called direct heat stroke or Exertional heat stroke. When heat stroke goes above 104 °F it can lead to brain damage and the death of the person.

## HERE'S HOW AMC PLANS TO BEAT HEATWAVE THIS SUMMER

AMC is to implement its Heat Action Plan, informing people about extreme climates in the near future and the necessary steps to tackle it, this week. Ahmedabad Municipal Commissioner D Thara said, "If the city's temperature exceeds 43 degrees, the plan will ensure that people are alerted about the heatwave a few days in advance."

Various arrangements will be made to protect people from heatwave. City gardens will remain open during afternoons. Doctors and 108 service will be instructed to remain prepared to cater to victims of heatwave. Water and electricity department will be instructed to remain prepared with adequate supply of water and electricity respectively," said AMC officials. Ahmedabad was the first city in India to implement such a plan.





Project: Promoting Health, Livelihoods and Sustainable Livestock Systems in Peri-Urban Ecosystems of India  
Supported by: International Development Research Centre (IDRC-CRDI)

# BUILDING A NEW PARADIGM IN INFECTIOUS DISEASES

*I*n its efforts to combat India's infectious disease burden, PHFI has undertaken a range of work including primary research, policy evaluation, programme implementation, awareness generation and capacity building.. PHFI has facilitated private and public partnerships that led to innovative preventive management programmes for Sexually Transmitted Diseases (STDs), steps to resolve antibiotic resistance, and control of HIV/AIDS. PHFI is the designated technical support unit for the National AIDS Control Programme, working with the central government and State AIDS Control Societies on a range of interventions in partnership with local NGOs and self-help groups.

PHFI is the nodal agency of the Roadmap to Combat Zoonoses in India and is responsible for coordinating activities among all partners through a core joint working group that engages partner agencies and implements meeting recommendations. While undertaking these, the foundation also works closely with existing programmes and initiatives and further focuses on developing training programmes for public health specialists to strengthen multisectoral experience on the 'One Health' concept (linking all sectors ranging from human health to animal, wildlife, social and environmental sectors).

# NEWS

## IDEAS FOR INDIA FOR MORE EVIDENCE-BASED POLICY

**Tuberculosis control in India: More bang for bucks than simply saving**

Posted On: 27 May 2013  
Tags:



**Ramanan Laxminarayan**  
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India has one of the world's worst records on tuberculosis. This column presents recommendations for how to fight it more cost effectively.

The global burden of tuberculosis (TB) owes much of its weight to India. Over 3 million quarter of the world's TB patients in 2011 were from India, with an estimated annual deaths from TB (WHO 2012). The Revised National Tuberculosis Control Programme (RNTCP) is estimated to have saved 1.3 million lives over 1997-2006<sup>1</sup>. However, the programme is severely underfunded – for the 2012-2013 period, for instance, RNTCP was allocated Rs 142 million approx.), which is only 2% of the total health sector budget<sup>2</sup>.

Under RNTCP, 662 district TB centres and almost 2,700 sub-district TB units work to diagnose patients and treat them with short course chemotherapy under DOTs strategy.

## The New York Times

November 6, 2012

### As Dengue Fever Sweeps India, a Slow Response Stirs Experts' Fears

By GARDINER HARRIS

The epidemic of dengue fever in India is fostering a growing sense of alarm even as government

problem that experts say is threatening world.

that is sweeping the globe. Reported in just a (y) is now endemic in half the world's nations

w, and it keeps getting worse," said Dr. Ram coordinator.

a of those infected, can be extremely painful. m-weather vacations with the disease, which

nth, health officials in Miami announced a ca

bute to the epidemic's growth, hospitals are allways. At Kalawati Saran Hospital, a pediatric under the shade of a huge banyan tree outside

a were deathly ill inside. Eight-year-old Sneha's parents treated them at home but then Sneha's t

oulders, and her pain grew unbearable.

who has one name. "It is terrible."

ned with dengue fever through October, a 59 real number of Indians who get dengue fever

engue infections occurring every year in Indi



The Indian EXPRESS

<http://indianexpress.com/article/opinion/columns/the-post-dengue-prognosis/>

### The post-dengue prognosis

Written by K Srinath Reddy, N R Narayana Murthy | Published: September 22, 2015 12:24 am



An MCD Fumigation Worker at work in the old quarters of Delhi on Monday. Express Photo by Tashi Tobgyal New Delhi 140915

In any free society where terrible wrongs exist, some are guilty; all are responsible." While these words of Rabbi Abraham Joshua Heschel ring true for many social and political ills that appall us, they are also a timely reminder of our collective responsibility to correct the pathetic state of public health in our country. Accepting the failures of a dysfunctional health system with passivity or being pacified by reflexive responses to any crisis, while ignoring the crying need for systemic reforms, makes us all responsible for the poor health indicators that place India behind our South Asian neighbours, other BRICS nations and, for some indicators like child immunisation, sub-Saharan Africa.

## Malaria therapy loses efficacy, raises concern

Kalyan Ray, New Delhi, April 24, 2013, DHNS:

Parasites have found a way to bypass drug



India's preferred therapy to fight a common and deadly disease of efficacy loss, raising public health concerns that it may be a line.

The preferred treatment option for malaria cases by Plasmodium falciparum based combination therapy (ACT) in which anti-malarial drug is combined with another medicine for enhanced efficacy.

Efficiency of this second drug in the standard therapy is on the wane, according to a group of Indian researchers who say it can bypass the drug.

Though there is no therapeutic failure as yet, the situation is in Odisha, which has one of the highest numbers of malaria cases, was seen in tea gardens of north Bengal where, the

"It's an early warning sign for policy-makers. After seeing clinically," Manoranjan Ranjit, a scientist at the Indian Institute of Technology (IIT) Kharagpur, who led a team of researchers from RMRC and other institutions, told Deccan Herald.

The findings have been published in a recent study involving 15 lakh Indians get infected by malaria parasite Plasmodium falciparum. In Odisha, the prevalence of this parasite is 100 percent annually is in the state.

The WHO favoured the combination therapy for malaria development of drug resistance. India's malaria situation is a

## स्वाइन फ्लू से सचेत होने की जरूरत

स्वाइन फ्लू ने सारे देश में महारत मचा रखी है। इस समय देश के अधिकतर राज्यों में यह बीमारी फैल चुकी है। इस बीमारी से सबसे ज्यादा प्रभावित गुजरात, राजस्थान, महाराष्ट्र तथा मध्य प्रदेश है।

स्वास्थ्य मंत्रालय भारत सरकार की ओर से जारी ताजा आंकड़ों के अनुसार अब तक स्वाइन फ्लू से 1,80,920 लोगों की मृत्यु तथा 30,76,600 लोग इस महामारी से संक्रमित हो चुके हैं। गुजरात इससे सबसे ज्यादा प्रभावित है, राज्य में 400 से अधिक लोग इस बीमारी ने अपना

यह वाइरस पीड़ित व्यक्ति के छींकने, खांसने, हाथ मिलाने और गले मिलने से फैलता है। संक्रमित व्यक्ति को छूने से बचना चाहिए।

आवश्यकता नहीं है, समय पर पहचान होने पर इससे बचाव और उपचार संभव है। लेकिन अगर सही समय पर इलाज नहीं किया तो यह वायरस इंसान की जान तक ले लेता है। अगे चलकर बुरा और तेज हो जाता है, खांसी और बुढ़ जाती है, सांस में तकलीफ कई गुना हो जाती है और निमोनिया हो जाता है। जिसके बाद श्वस तंत्र कार्य करना बंद कर देता है एवं मृत्यु हो जाती है।

### संक्रमण एवं सावधानियां

यह वाइरस पीड़ित व्यक्ति के छींकने, खांसने, हाथ मिलाने और गले मिलने से फैलता है। संक्रमित व्यक्ति को छूने से बचना चाहिए।

अथवा पानी का अधिकधिक प्रयोग करें। स्वाइन फ्लू के मरीज, उनके साथ रहने वाले लोगों, स्वास्थ्य कर्मियों को तथा भीड़भाड़ वाली जगहों में जाने से पहले धीरे लेपर सर्जिकल अथवा एन-95 मास्क का प्रयोग करना चाहिए। जिनकी रोग प्रतिरोधक क्षमता कम होती है, उन्हें अधिक सजग रहने की जरूरत है। जैसे की 60 वर्ष से ज्यादा उम्र के व्यक्ति, लीवर, किडनी, डायबिटीज, दमा एवं एड्स से पीड़ित रोगी, नवजात शिशु एवं छोटे बच्चे, गर्भवती महिलाएँ आदि।

### उपचार

जैसा की हमें ज्ञात है स्वाइन फ्लू बीमारी नहीं है, इसका उपचार संभव है। एंटीवायरल दवाइयों से उपचार प्रारम्भ करना चाहिए। ये दवाइयों को पाने के लिए पेरिसिटामोल के सिरेप देना चाहिए। ये दवाइयों पर पांच दिन के लिए लेनी चाहिए। ये फलू को पूर्ण रूप से नहीं करती है, लेकिन ये बीमारी को अवधि, लक्षणों को कम करने के अलावा न्यूमोनिया को भी कम करती है। स्वाइन फ्लू को भी विकसित किया जा सकता है। लेकिन भारत सरकार सिर्फ स्वास्थ्य कर्मियों के लिए इधकी दवा देती है।

### युर्वेद एवं योग

स्वाइन फ्लू तथा अन्य वायरस से बीमारियों के उपचार एवं बचाव के लिए आयुर्वेद एवं योग पद्धति में प्रतिरोधक क्षमता बढ़ाने की सलाह दी जाती है। गिल्लिय (अमृता), नीम, तुलसी एवं आंवला के रस के प्रयोग, जिनके युक्त खाद जैसे- सेरल, नटस, कद्दू मशरूम और तिल, व विटामिन ए और सी से भरपूर खाद्य प्रतिरोधक तंत्र को मजबूत करने में बहुत मदद करता है। नीम, तुलसी, हल्दी, मूलेठी, के साथ थोड़ा-सा ऑलिव, और काली मिर्च का पावडर डालकर काढ़ का उपयोग भी बचाव एवं उपचार में उपयोगी है।

योग शरीर के श्वसन और प्रतिरक्षा तंत्र को मजबूत करता है। स्वाइन फ्लू जैसी बीमारी से बचने के लिए हमें अनुलोम-विलोम, उज्जायी प्राणायाम, कपालभाति, ताड़सन, महावीरसन, भुजंगासन, मंजूकासन, और दीर्घश्वसन आदि कर सकते हैं।

### होम्योपैथी

स्वाइन फ्लू के बचाव के लिए होम्योपैथी मेडिसिन भी काफी प्रभावित है। सुरक्षित है। इन्फ्लूएंजाइनम, जे लसोमयम, ऑक्सिलोकोकीनम एवं पायरोजेनियम से स्वाइन फ्लू वायरस के प्रति इम्युनिटी बढ़ाई जा सकती है।

### सरकार की भूमिका

सरकार को उचित समय, उचित स्थानों (सरकारी एवं प्राइवेट चिकित्सालयों, केमिस्टों) पर आवश्यक दवा (टेमोफ्लू) को उपलब्धता सुनिश्चित करनी होगी।

-डॉ. महावीर गोलेच्छा, स्वास्थ्य नीति विशेषज्ञ - एम्स, नई दिल्ली, लंदन स्कूल ऑफ इकोनॉमिक्स एवं लंदन स्कूल ऑफ हाइजीन एंड ट्रॉपिकल मेडिसिन से प्रशिक्षित है। वर्तमान में पीएचएफआई से संलग्न है।

## BioSpectrum the business of bioscience

New Delhi: 14 October 2014

<http://www.biospectrumindia.com/biospecindia/news/219273/-emerging-infections-pre-determined>

## "Emerging infections not pre-determined"

14 Oct 2014, Rahul Koul, Biospecindia



"Irony is that we don't have an effective system. A robust functional health system is essential. Currently, there is an inability in the system to effectively tackle epidemics. Systems not ready at all levels. While the response at the center even if quick, will not be of much use until state governments too have a system in place. If you go down to state levels, preparedness remains an issue as the resources are not enough," Dr Manish Kakkar, senior health specialist, Public Health Foundation of India (PHFI) told BioSpectrum's Rahul Koul over the phone.

# PHFI IS ENGAGED WITH MULTI-SECTORAL PROGRAMMES FOR HIV PREVENTION IN INDIA

*T*he Impact through **Prevention, Private Sector and Evidence-based Programming Project (PIPPSE)**, supported by the United States Agency for International Development (USAID), is a five-year project on HIV/AIDS programme implementation. This effort is led by PHFI with Futures Group International India Pvt Ltd, and Population Services International (PSI) as partners. PIPPSE provides multi-layered, cutting-edge technical assistance to the National AIDS Control Program (NACP) for institutional strengthening, building evidence and testing multiple innovations, which in turn strengthen the quality and comprehensiveness of programmes for HIV prevention, care and treatment while ensuring private sector engagement in HIV/AIDS prevention and control.

## **PIPPSE IMPACT**

- PIPPSE-supported National Migrant Unit (NMU) in NACO provided strategic and programmatic oversight in scaling up the destination interventions for high-risk migrants from 215 (reaching 2.97 Million migrants) in December 2012 to 315 (covering 3.39 Million migrants) in March 2015.
- PIPPSE-supported Technical Support Units (TSUs) in its focus states (Goa, Gujarat, Kerala, Maharashtra, Rajasthan, Tamil Nadu, Uttarakhand and Uttar Pradesh) by providing programme management and quality assurance support to 38 percent (697/1840) of the total Targeted Interventions (TIs) for prevention of HIV amongst Key and Priority Populations (KPPs).

- PIPPSE provides significant support to the National Integrated Behavioural and Biological Surveillance (IBBS), the largest survey in the world in terms of scale and comprehensiveness of the sample of the key populations, including migrants and Currently Married Women (CMW). National IBBS summary report is expected in December 2015 and PIPPSE is taking lead on data analysis and reporting for migrants and CMW components.
- PIPPSE conducted several research studies, namely, (a) baseline study conducted in Thane district that informed the opportunities and challenges in DNM implementation (b) Polling Booth Survey (PBS) being conducted for migrants in Thane (Maharashtra) and Surat districts and for CMW in Gorakhpur, Basti, Ganjam and Naupada districts to understand the risky behavior that makes migrants and CMW vulnerable to STIs and HIV, and to validate the MSDS tool that is being used in piloting of LCP (c) Behaviour Tracking Survey (BTS) is being conducted for key populations, namely, female sex workers, men having sex with men and injecting drug users in Thane to understand their risk behaviours and vulnerability to STI/HIV/AIDS and service uptake and (d) a special study, as requested by UPSACS, is being conducted among IDUs to validate the IDU numbers in Lucknow and Varanasi districts.
- District Network Model (DNM), a flagship initiative of PIPPSE, in Thane and Palghar districts of Maharashtra, is steering partnerships and mobilising resources through different stakeholders in public, private and NGO sectors for sustainable and synergistic HIV response.
- In coherence with the revised national migrant strategy, PIPPSE piloted source-destination linked corridor program (LCP) across two high migration corridors, namely, Eastern Uttar Pradesh – Thane (Maharashtra), and Ganjam, Cuttack (Odisha) – Surat (Gujarat) to test and refine program strategies and approaches for migrant interventions at source and destination sites.
- PIPPSE has also generated wider interest, particularly in the context of UNAIDS 90:90:90 global strategy, by piloting Phase 1 of Community Based Testing (CBT) for HIV through six TIs in Thane from September 9 to October 31, 2015. In 46 camps, 1,375 individuals were tested and 15 found reactive to HIV.
- In collaboration with the Public Health Technologies Trust, PIPPSE also pre-piloted AIDS Prevention and Treatment System (APATS), a tab based system for real time registration of clients, service delivery



A Peer Educator doing condom demonstration in the community Photo credit: PIPPSE project

across prevention to care continuum, and monitoring and reporting. It is reckoned that APATS will help in overcoming challenges with duplication, and in validating the exact number of KPPs.

- The unorganized sector forms 93% of India's workforce. The majority of this forms part of supply chain of industries. Such industries can serve as better intervention points for comprehensive prevention to care programs. Thus, in collaboration with NACO, PIPPSE took a strategic step in designing Employer Led Model (ELM) for engaging industries to reach their informal migrant workers with HIV/AIDS programs. More than 200 industries across the country were enrolled for ELM, while more than 70 industries are actively implementing the program. The ELM enables industries to integrate awareness and service delivery programs within their existing systems, structures and resources.

- In line with the NACP IV (2012-17) vision to consolidate the lessons learned in implementing multiple state and local helplines, and further the efforts to actualise a single National HIV/AIDS Helpline, PIPPSE is supporting such a Helpline, launched on December 1, 2014, on World AIDS Day, by Shri J.P. Nadda, Honourable Minister for Health

and Family Welfare, Government of India. Since the launch, 729,102 calls have been received at the server and since the last three months, the helpline has received an average of 70,000 calls per month. PIPPSE also conducted 11 Webex-based refresher trainings for counsellors and supervisors of the Helpline.

- PIPPSE is taking the lead role in providing technical assistance to NACO and SACS in Mainstreaming HIV/AIDS. PIPPSE hired ten regional program managers to provide support in signing state level MoUs with other line departments and roll out of mainstreaming activities. More than 100 Joint Working Groups that have been established to develop HIV inclusive policy in other departments and 107 directives issued by states to extend social protection benefits such as transport concessions, monthly pension, nutrition support, etc. to PLHIV and other vulnerable populations.

In 2008, the Partnership for Sustained Impact (PSI) project was launched. Led by PHFI, this project was aimed at providing techno-managerial and financial support to the National AIDS Control Organization (NACO). Coincidentally, Phase III of National AIDS Control Program was also launched the same year.

- PSI supports the national program through support to the various Technical Support Units (Karnataka, Andhra Pradesh) and also Technical Support Group (TSG) – Condoms. The last of these was constituted by NACO to monitor and oversee the Condom Social Marketing Program (CSMP). Through this, the condom market has grown significantly from 1.8 billion in 2007-08 to 2.7 billion in 2013-14 (including 727 million free condoms). Since August 2015, the project has been directly supporting the TSG-Condom to sustain the core condom social marketing functions.

- PSI has supported the development of communication strategies and materials by NACO and SACS for over eight years. These have ranged from radio and television advertisements for promoting condom use, STI treatment, voluntary blood donation to materials for community members and peer educators. Currently it supports the development of a 360 degree campaign on condom normalisation.

- The project has facilitated **module development and implementation** through national and regional trainers. Further, it has enabled the national program's capacity building efforts through State Training Resource Centres (STRCs). NACO's transfer

of Āvāhan's learnings from southern states to 6 identified northern states (Bihar, Odisha, Madhya Pradesh, Uttar Pradesh, Chhattisgarh and Rajasthan) in India is supported by PSI. This has been achieved through establishment and strengthening of 33 learning sites and capacity building of the state TI staff (650+ personnel) in the prevention program.

- An online distance learning programme for **Opioid Substitution Therapy (OST)** was launched by J P Nadda, Hon'ble Union Minister of Health & Family Welfare, Government of India on World AIDS Day 2015. It was developed by the project for building capacities of service providers and personnel engaged in delivering OST in NACO supported centres. This programme is a joint endeavour of National Drug Dependence Treatment Centre (NDDTC), All India Institute of Medical Sciences (AIIMS), New Delhi, and Public Health Foundation of India (PHFI), New Delhi.



Involving Men - A male peer educator talks about myths and misconceptions to the community men

# NEWS



## Continue focus on AIDS programme

Dr Ashok Agarwal Dec 1, 2015,

As World AIDS Day is observed today, India, with more than 20 lakh HIV cases, continues to be a worry. In 2014, 1.5 million people died of tuberculosis (TB) compared to 1.2 million from HIV/AIDS. Clearly, there is still significant work to be done on both TB and HIV/AIDS. However, this also means there has been a major success in reducing mortality due to HIV/AIDS (a 42 per cent reduction since 2004), which was first detected in 1981 in the United States and in 1986 in India.

The government-led Indian National AIDS Control Programme (NACP) has been lauded globally as a major success story: HIV incidence (occurrence of new cases) has reduced 57 per cent in 10 years. With this kind of progress, India is at a stage of building on its achievements and must strategically focus on activities to reduce new HIV infections to zero.

The UNAIDS, the HIV/AIDS body of the United Nations, has set a global target of '90-90-90' by 2020 – 90 per cent of people in a country are tested and know their status; 90 per cent of those testing positive are put on anti-retroviral therapy (ART); and 90 per cent of those put on ART have a low viral load. Targets are meant to rise 95-95-95 by 2030.

The UNAIDS estimates that reaching the 90-90-90 target will require a total US \$14 billion by 2016, including drug costs, service delivery, community mobilisation, ensuring access to testing and retention in treatment, and pre-ART costs.

India cannot decrease its HIV/AIDS programme budget but needs to significantly increase it; all the more essential in light of significant decrease in international funding. The results of decreasing the budget and slowing the programme may undermine the achievements made so far, leading to a rise in the number of HIV infections and deaths.

With more than 20 lakh HIV cases, India has been maintaining its position as the country with the third largest number of HIV infections in the world, after South Africa and Nigeria. Now is the time for India to demonstrate global leadership with an effective strategy in eliminating new cases in the shortest possible time.

Though India allocates substantial resources to HIV prevention, there remains work to be done in this realm as well as improving education, broadening access to quality treatment and the reducing stigma and discrimination.

The government supports implementation of around 1,850 targeted intervention (TI) projects across the country through the community based organisations and NGOs. They reach out to high risk populations, namely female sex workers (FSW), men who have sex with men (MSM), transgender individuals (TG), injection drug users (IDU), and migrant workers and truckers. This strategy has been very successful.

Vaccines and education remain the prime weapons for HIV/AIDS prevention. Research is ongoing for inventing a vaccine against HIV/AIDS, but preventative prophylaxis (PrEP) for high-risk populations has been successful in other settings.

## Centre must rethink its public health policy

JVR Prasada Rao, Hindustan Times



India bears the third-highest burden of HIV/AIDS in the world despite having radically brought down the incidence of new cases by 57 per cent since 2000. Vijayanand-Gupta-HT-photo

After outstanding successes in reducing new HIV infections and providing life-saving treatment to more than 800,000 persons, India's AIDS control efforts are running into rough weather. The latest bad news is the budget cut in the AIDS programme for 2015-16, which was allocated Rs 1,397 crore — hardly enough for priority interventions, let alone for scaling them up to reach national and global targets. India needs to put another one million people under treatment and enhance testing and prevention programmes to cover 90% of key affected populations for achieving its target of ending AIDS as a public health threat. With the current allocations, the programme will struggle to maintain current and this can potentially lead to a resurgence of the epidemic.

The programme is also dogged by other challenges. The national programme administered since 1992 through the National AIDS Control Organisation (NACO), a semi-autonomous entity established by the health ministry under a senior official of the rank of director general (DG), has scored significant gains in combating AIDS. The programme's success is attributable to the active participation of affected communities and effective decentralisation to autonomous state AIDS societies, which received funds directly from NACO. Annual new HIV infections dropped from over 360,000 in 1997 to 130,000 in 2013, bringing down the number of infected persons in the country from 3 million to less than 2.1 million. India's success story has been quoted by UN agencies as the best example of a comprehensive response to AIDS.

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PHFI is supporting efforts towards prevention and control of HIV/ AIDS in India.

PHFI with support from the Bill and Melinda Gates Foundation implements the Partnership for Sustained Impact (PSI) project which provides technical support to the National AIDS Control Organisation (NACO). The project has set up a quality assurance mechanism for monitoring 1800 targeted interventions (NGOs) across the country. The project also undertakes strategic design and development of training and communication material for training and capacity building at scale.

PHFI with support from USAID is implementing PIPPSE project which is providing technical assistance to the National AIDS Control Program (NACP) to prevent and control HIV/ AIDS in India. PHFI works closely with National AIDS Control Organisation (NACO) and State AIDS Control Societies (SACS). PIPPSE is implementing an innovative District Network Model (DNM) in Thane, Maharashtra; and supporting eight out of 17 Technical Support Units (TSUs) in the country.

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Launch of the Mission Indradhanush: An initiative by Ministry of Health and Family Welfare, Government of India to achieve full immunization coverage for all children launched in December 2014. Supported by Bill and Melinda Gates Foundation (BMGF). Photo credit: PHFI

# WHAT IT TAKES TO VACCINATE 27 Million Indian Children: GOING THE LAST MILE

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Launched on 25th December 2014 by the Ministry of Health & Family Welfare, Government of India, it was listed as the Ministry's topmost achievement of 2015.

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To strengthen and revamp the Universal Immunization Programme (UIP), the Ministry of Health & Family Welfare (MoHFW), Government of India, entered into a Memorandum of Understanding with PHFI. The Immunisation Technical Support Unit (ITSU) supports the Government of India's efforts, in consultation with existing routine immunization partners. ITSU has under its purview: procurement and logistics; cold chain management; Adverse Events Following Immunization Management (AEFI); vaccine quality and safety; strategic communication; monitoring and evaluation; and evidence generation and Vaccine Preventable Disease surveillance (VPD). In addition to the MoU, PHFI is a technical partner to Mission Indradhanush. The Mission aims to ensure full immunization with seven vaccine-preventable diseases for all children under the age of two.



eVIN loggers

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eVIN project conceptualised by ITSU, was first piloted 2 districts of Uttar Pradesh.

ITSU and UNDP defined the technical specifications for eVIN procurement and is being scaled up in UP, MP and Rajasthan. ITSU will evaluating the implementation on behalf of Ministry of Health and Family Welfare (MoHFW).

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ASHA worker on Immunisation rounds with her vaccine carrier in Assam  
Project: Immunisation Technical Support Unit (ITSU)  
Supported by: Bill and Melinda Gates Foundation (BMGF). *Photo credit: Pranab Aich/PHFI*

# NEWS & PUBLICATIONS

## BioSpectrum

the business of bioscience

### "Four new vaccines have increased India's immunization strength"

19 Aug 2014, Rahul Koul, Biospecindia



Besides sharing his perspectives on the immunization program, Dr. Ramesh Chandra Saxminarayan, vice president, research and policy, Public Health Foundation of India (PHFI), explained to BioSpectrum the current scenario on Indian efforts to achieve 100% vaccination coverage to more than 90% of the population and given in a precise sequence.

What kind of overall impact will the recent inclusion of four new vaccines in the universal immunization program?

The Government has introduced four new vaccines in the universal immunization program. It is a major accomplishment. The existing oral polio vaccine has advantages such as vaccine derived polio cases. It can get into the gut of the polio virus like that as it will continue to remain there. The injectable polio vaccine (IPV) will help in complete elimination and eradication of the virus. So, that is a major success for the polio program.

Measles, Mumps, Rubella has been identified as one of the major problems in children. After discussions within the government, a decision was taken to introduce these three vaccines in the universal immunization programme.

## Business Standard

### Can the Indradhanush project save 500,000 Indian children?

As many as 1.8 million children in India don't live beyond age 5, despite many of these deaths being vaccine-preventable

Manupriya | IndiaSpend | Bengaluru November 05, 2015 Last Updated at 11:32 IST



As many as 500,000 children die every year in India due to vaccine-preventable diseases, despite a three-decade old, government-run universal immunization programme.

live  
mint

### The top delivery challenge in India

Vaccine delivery needs more than just syringes and needles. Vaccines need to be kept in a cold chain from the moment they are manufactured until they are administered



% vaccination coverage to more than 90% of the population and given in a precise sequence.

It is obvious until you consider the logistical challenges of delivering vaccines to remote parts of India. The current system has not. However, it's all changing in the world—and must deliver a series of vaccine doses were administered under

the full schedule of vaccines and are at risk of dying in their communities). Every year, one

100% vaccination coverage to more than 90% of the population and given in a precise sequence to save a child's life.

and needles. The vaccines need to be kept in a cold chain until administered.

Immunization programmes are now using technology to support the routine immunization and Mission Indradhanush. Each has refrigerators and devices to store vaccines at optimum temperatures.

support unit of the UIP (universal immunization programme) is now allowing central administrators to monitor the progress. Sensors send information to monitor the progress and not spoil en route to remote areas.

## India to introduce rubella and rotavirus vaccines and inactivated polio vaccine

BMJ 2014; 349 doi: <http://dx.doi.org/10.1136/bmj.g4844> (Published 25 July 2014)  
as: BMJ 2014;349:g4844

Ganapati Mudur  
1. New Delhi

The Indian government has accepted the recommendation of scientific and medical experts to introduce vaccine against injectable inactivated vaccine against polio in

The government announced earlier that the universal immunisation programme will include free vaccines against diphtheria, polio, tetanus, and tuberculosis. The vaccine against Japanese encephalitis will also be included.

Health officials say the disease is caused by a virus that is widespread in India—while the vaccine will provide long-term immunity. The magnitude and challenges to vaccine uptake are significant.

Vaccines against rubella and rotavirus are given by paediatricians in the country. Prime Minister, Narendra Modi, said: "The government will now ensure that every child of the society, regardless of their background, has access to these vaccines."

The government estimates that every year and lead to about a million births. Reproductive age in India are susceptible to rubella syndrome is 123 cases in every 100,000 live births.

## BusinessLine

### Giving immunisation a shot in the arm

By Ramanan Laxminarayan



safe from diseases ZS000F1JA/SHUTTERSTOCK.COM  
ush has undertaken, so that India's children get  
fect our children from numerous  
en die every year due to  
risk because they are  
are unacceptable for  
ional for more than  
age increased by  
ent coverage

## ready with SMS-based vaccine monitoring



eVIN project  
conceptualised by ITSU  
By SMS-based m  
ence network, officials at the Centre will be able to manage vaccine movement, c  
when inspecting officials visited Faridpur community health centre near Bareilly, c  
were shocked to find country-made liquor bottles stocked in the freezer inste  
had become unfit for use.



Healthy Habits Start Young: PHFI works on projects that promote awareness on the importance of balanced nutrition and regular physical activity for a healthy lifestyle among school children



“In health there is liberty.  
h ealth is the f rst of all liberties...”

— AMIEL



Two day refresher training and review meeting of Healthy Activity Programme ( WHO tool) with front line workers of Doraha, Madhya Pradesh under PHFI's PRIME (Programme for Improving Mental Health Care) project

6

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ALIGNED TO  
HEALTH SYSTEM  
STRENGTHENING  
INITIATIVES

# PHFI IS WORKING TOWARDS REDUCING DISEASE BURDEN OF TOBACCO

Using innovative interventions and multi-sectoral partnerships, PHFI has been taking the lead in reducing the health burden of tobacco through multi-sectoral tobacco control initiatives such as — evidence-based economic and policy research, advocacy, community-based cessation strategies, and media engagement. Some of the major milestones:

In a major project undertaken by PHFI, 3700 villages in Andhra Pradesh and Gujarat implemented tobacco control initiatives through engagement of gram panchayats, local community leaders and members of the public. Community interventions under the project helped Pongalipakka village in Andhra Pradesh, inhabited by 1632 people, became tobacco-free on the World No Tobacco Day, May 31, 2012. The project was successful

in developing National, State and District Resource Hubs and building capacity through systematic training, workshops and meetings of state level government officials of health & education departments of AP & Gujarat and training of over 2300 teachers and 6250 peer leaders from 960 schools; 4500 health care providers including physicians, counselors, nurses, ANMs, lab technicians & pharmacists; 34 state-based senior journalists and 30 vigilante reporters; 1500 law enforcers and 700 Self Help Group (SHG) members.

**PHFI organised The International Conference on Public Health Priorities in the 21st Century: The Endgame for Tobacco** in September 2013 which witnessed participation of 600 delegates from across the world along with government representatives from 40 countries, government officials, World Health



School students advocating for 85% pictorial health warnings on tobacco product packages by April 2016 as part of 'No More Tobacco' in 21st century (NMT21C) programme launched by PHFI



Organisation experts, tobacco control advocates and experts, youth and media. The conference was partnered by 23 national and international agencies and organizations including MoHFW and WHO among others. During the conference, a 23-point Declaration was adopted, strongly recommending ratification and full implementation of the WHO Framework Convention on Tobacco Control (FCTC) by all countries through an action plan that includes: raising tobacco taxes, mandating plain packaging for all tobacco products, progressively reducing the land under tobacco cultivation, prohibiting sale of tobacco to all persons born after 2000, developing a comprehensive set of tobacco cessation services, and de-normalising of tobacco industry. This conference also witnessed the launch of “No More Tobacco in the 21st Century” (NMT21C) – a

**youth campaign** by PHFI and its partners, as the vanguard of a global movement for elimination of tobacco. NMT21C has been endorsed by several world leaders and supported by youth advocates all over the world.

PHFI has undertaken research on **the economic burden of tobacco use in India** estimating the economic costs attributable to tobacco and found from all diseases in India in the year 2011 for persons aged 35-69 years, a total of Rs. 1,04,500 crores (US\$ 22.4 billion) in economic costs can be ascribed to tobacco use. The findings of the study were released by Former Union Minister for Health and Family Welfare Dr. Harsh Vardhan on 29 May 2014. PHFI has undertaken a study on tobacco taxes and their impact on revenue and consumption, in an effort to reduce the financial consequences of direct and indirect costs of tobacco attributable diseases. This study titled ‘An Empirical Study of India’s Fiscal Policies against Tobacco: A State Level Analysis’, calls for urgent action at the national and state levels to increase tobacco taxes. On all categories of tobacco products.

PHFI continues to advocate for a number of initiatives to reduce the burden of tobacco related diseases in India, in partnership with several other civil society representatives and the World Health Organisation (WHO).

International Conference on Public Health Priorities in the 21st Century: The Endgame for Tobacco (2013). L-R: Keshav Desiraju; Prof Pekka Puska, Dr Margaret Chan, Ms. Avni Sharma, Shri Ghulam Nabi Azad, Prof K.S. Reddy, Dr Monika Arora. *Photo credit: PHFI*



The Global Youth Meet 2015, organised by PHFI and HRIDAY at Vishakapatnam. The conclave had participation from over 33 countries and 160 foreign and Indian delegates.

The Youth launched the GUARD OUR GLOBE campaign. The Declaration recalls the newly adopted sustainable development goals and recommended youth-led action points to advance each of the 17 goals. The Declaration also calls on world leaders to prioritise youth participation and identify mechanisms for youth engagement in the national and global agendas.

**WANT TO PLAY A LONG INNINGS IN LIFE?**

**STAY AWAY FROM TOBACCO: TOBACCO KILLS!**

**NO MORE TOBACCO**

**Young people must take the lead in eliminating Tobacco in 21st Century**

**Mr Rahul Dravid**  
Tobacco Control Brand Ambassador for Ministry of Health and Family Welfare, Government Of India

CAMPAIGN FACILITATED BY PUBLIC HEALTH FOUNDATION OF INDIA AND HRIDAY IN THE INTEREST OF PUBLIC HEALTH.

Former Indian Cricket Captain Rahul Dravid appointed as the Brand Ambassador for Tobacco Control by the Ministry of Health and Family Welfare, Government of India, after he agreed to a request from PHFI. *Photo Credit: PHFI*

# WORLD SPIRITUAL LEADERS RESPOND TO PHFI'S CAMPAIGN FOR TOBACCO CONTROL



संस्कृत विभाग

## MESSAGE

Whatever short-lived pleasure it may provide, there is now no doubt that the use of tobacco is a cause of much disease and misery. I am shocked to know that nearly 6 million people die of tobacco related causes every year, but encouraged to know that the World Health Organization is setting targets to significantly reduce tobacco use.

The most effective way of persuading people not to start smoking in the first place or to modify their behaviour and give up the habit is to make them aware of the dangers involved. Information and public education about the harmful effects of smoking have modified people's behaviour in many parts of the world. But mere information is not sufficient, only a firm conviction that smoking is harmful will provoke the necessary determination to change.

First you develop awareness of the harm smoking does the body, and become convinced of that harm and the effects it may be having on you. Then you must use that awareness to strengthen your determination to change; you work out ways to implement it and make a concerted effort to establish new patterns of behaviour. Learning, conviction, determination, action and effort are necessary steps if you are to make the changes in outlook and behaviour that can help you transform yourself into a healthier, happier person.

I am happy to know that the Public Health Foundation of India are to host an international conference in Delhi in September focussing on The Endgame for Tobacco. I offer my greetings to all who attend and my prayers that you may come up with practical steps to overcome the damage done by tobacco and ensure a healthier population.

September 3, 2013

Message from His Holiness The Dalai Lama



SEGRETERATO DI STATO

UFFICIO SEGRETERO - GENERALE ADDIZIONE

From the Vatican, 3 June 2013

Dear Professor Reddy,

His Holiness Pope Francis has received your letter of 30 April 2013 and he has asked me to reply in his name. He appreciates the concern which prompted you to share your thoughts with him.

The Holy Father encourages you and your collaborators in your efforts to raise awareness about threats to human health incurred by the use of tobacco, and he assures you of a remembrance in his prayers.

With every good wish, I am

Yours sincerely,

Monsignor Peter B. Wells  
Assessor

Professor K. Srinath Reddy  
President  
Public Health Foundation of India  
PHFI House, 2nd Floor  
4/2 Sirifort Institutional Area  
August Kranti Marg  
New Delhi 110016

Message from His Holiness Pope Francis

# NEWS & PUBLICATIONS

THE ECONOMIC TIMES

<http://economictimes.indiatimes.com/opinion/interviews/budget-2016-impose-more-taxes-on-alcohol-tobacco-products-says-k-srinath-reddy-phfi-president/articleshow/51130913.cms>

## Budget 2016: Impose more taxes on alcohol, tobacco products, says K Srinath Reddy, PHFI President

By Prabha Raghavan, ET Bureau | Feb 25, 2016, 04.44 AM IST

Post a Comment



The finance ministry should impose heavier taxes on tobacco, sugared beverages to arrest India's growing non-communicable diseases (NCDs)

DH  
DECCAN HERALD

## As India waits for proof, 3,500 succumb to tobacco daily

Dr Monika Arora, April 6, 2015, DHNS

while globally tobacco

oneworld.net

## Primary health care: The cornerstone for tobacco cessation

Dr Rajmohan Panda and Hayden McRobbie

Dec 10, 2014

Physicians have an extremely important role to play in tobacco cessation  
Hayden McRobbie.

New Delhi: The recent news that sale of loose cigarettes may be increased from 10 to 20 cigarettes per pack could be a useful strategy for preventing initiating of smoking.

Open Access

BMJ  
open  
accessible medical research

## Are socioeconomic disparities in tobacco consumption increasing in India? A repeated cross-sectional multilevel analysis

Nandita Bhan,<sup>1</sup> Swati Srivastava,<sup>2</sup> Sutapa Agrawal,<sup>3</sup> Malavika Subramanyam,<sup>4</sup> Christopher Millett,<sup>5</sup> Sakthivel Selvaraj,<sup>2</sup> S V Subramanian<sup>1</sup>

ABSTRACT

**Objectives:** India bears a significant portion of the global tobacco burden with high prevalence of tobacco

ARTICLE SUMMARY

Article focus

Addiction  
TRIAL PROTOCOL



doi:10.1111/add.12420

## A cluster randomized controlled trial of a brief tobacco cessation intervention for low-income communities in India: study protocol

Bidyut K. Sarkar<sup>1,2</sup>, Lion Shahab<sup>2</sup>, Monika Arora<sup>1</sup>, Fabiana Lorencatto<sup>3</sup>, K. Srinath Reddy<sup>1</sup> & Robert West<sup>2</sup>

Public Health Foundation of India, New Delhi, India; <sup>1</sup> Department of Epidemiology and Public Health, University College London, London, UK; <sup>2</sup> and NCSC, University College London, London, UK

ABSTRACT

**Background** India has 275 million adult tobacco users and tobacco is responsible for 1.2 million deaths in the country.

## Differences in tobacco use among young people in urban India by sex, socioeconomic status, age, and school grade: assessment of baseline survey data

K Srinath Reddy, Cheryl L Perry, Melissa H Stigler, Monika Arora

Summary

**Background** The epidemic of tobacco use is shifting from developed to developing countries, including India, where increased use is expected to result in a large disease burden in the future. Changes in prevalence of tobacco use in these countries are important to monitor, since increased use by young people might be a precursor to increased rates in the future.



# BUILDING AN EVIDENCE BASE ON CHRONIC CONDITIONS IN INDIA

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**Chronic Non - Communicable diseases now account for 60% of all deaths in India. It is estimated that they will cause an economic loss of 4.58 trillion USD between 2011 and 2030.**

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Chronic conditions are a diverse group of diseases, ranging from cardiovascular disease and diabetes to mental and neurological disorders. Collectively they pose the biggest health challenge of the 21 century, for both rich and poor countries alike. There is a growing commitment to tackle chronic conditions both globally (as exemplified in the World Health Organisation's global action plan for the prevention and control of Non-communicable diseases and WHO's its Comprehensive Mental Health Action Plans), and in India, through major national health policy initiatives.

The under-recognised and unmitigated impact of the chronic conditions threatens to jeopardise economic development and is already preventing millions of families from escaping poverty. The rising number of people suffering from multiple chronic conditions



# Welcomes you to the Launch of



## CENTRE FOR CONTROL OF CHRONIC CONDITIONS

An international partnership for prevention and control of chronic conditions



LEFT TO RIGHT Prof. Prabhakaran (PHFI), Dean Curran (Emory University), Prof. Reddy (PHFI), Shri Y.S. Chowdary, Honourable Minister of State for Science and Technology, Prof. Anne Mills (LSHTM) and Prof. Nikhil Tandon (AIIMS) unveil report on Chronic Conditions in India



A woman getting her blood - sugar test done at a community health center under the UDAY Project

simultaneously highlights the need for innovative, person - and family-centred approaches towards understanding and tackling these conditions in a holistic manner.

The chronic care paradigm encompasses preventive and therapeutic care, and both must incorporate risk-factor management. This quest requires a vision which is inter-disciplinary, integrating diverse biomedical fields, clinical and public health sciences, and biological and social sciences. It is with this goal in mind that PHFI, in June 2014, merged its Centre for Cardio Metabolic Risk Reduction in South Asia (CARRS), South Asia Network for Chronic Disease (SANCD) and Centre for Mental Health (CMH) with the Centre for Chronic Disease Control (CCDC) to launch the Centre for Chronic Conditions and Injuries (CCCI).

With the objective of generating knowledge that can impact policy and practice aimed at reducing the burden of chronic conditions in India and beyond, the

secretariat of CCCI launched the new Centre for Control of Chronic Conditions (4C) on 7th April 2015. The 4C is an international partnership between four leading institutions: the All India Institute of Medical Sciences (New Delhi) (AIIMS), Emory University, the London School of Hygiene & Tropical Medicine (LSHTM) and the Public Health Foundation of India (PHFI). The secretariat of CCCC is located at PHFI.

The approach taken by the 4C is an integrated one, addressing a range of morbidities, encompassing individuals and those they share a home with and guided by the principle that it is not diseases that matter, but people – and the families and communities they live in. 4C, in collaboration with its partners across India and abroad, is already engaged in a number of such integrative studies, from cohorts assessing the patterns and consequences of multiple morbidities to evaluating new models of care delivered by non-physician health care providers.

**THE HINDU**  
Published: November 29, 2015 01:50 IST | Updated: November 29, 2015 03:41 IST  
INDIA AND DIABETES

## Managing a great epidemic



D. Prabhakaran

day, over 300 million people live

diabetes has now become a major  
reason.

onic conditions or non-commu  
be managed and controlled, but  
the heart and blood vessels, diabe  
ritis. Diabetes has now become  
use of several reasons. World D  
ed in 1991 by the International I  
nisation in response to growing

y, over 300 million people live w  
ten been referred to as the "dial  
on to China. According to the In  
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es which is an immediate precu  
and rich man's disease but we n  
e with diabetes is much higher i  
ed.

Factors

## India's first Center for Control of Chronic Condition

Minister of State for Science and Technology Y.S. Chowdary on Tuesday launched the country's first 'Center for Control of Chronic Condition', hoping it will bridge the gap in healthcare.

The Center for Control of Chronic Condition is an international partnership between Delhi's AIIMS, US-based Emory University, the London School for Hygiene and Tropical Medicine and the Public Health Foundation of India (PHFI).

ernment has always lacked a master blueprint for the development of the Center for Control of Chronic Condition will bridge the gap that has

tistics, chronic conditions -- heart diseases, cancer, strokes, diabetes and cause behind deaths in India. They account for 60 percent of the total

## Depression in India is rising, but we can't even talk about it

There is an urgent need to scale up services for treat



RAHUL SHIDHAYE

Mrs. B is a 54-year-old woman living in a m. Her son is settled in a developed country U. married and lives in city F. She is a homema husband. Their financial condition is very st looking forward to his post-retirement life. S months she has been feeling very tired throu not been able to sleep at night and has been v morning feeling very tense.

Earlier she used to eat two-to-three rotis at a



dailyO

Agrawal et al. *Nutrition Journal* 2014, **13**:89  
http://www.nutritionj.com/content/13/1/89



Open Access

## RESEARCH

# RESEARCH

## Type of vegetarian diet, obesity and diabetes in adult Indian population

12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842,

Sutapa Agrawal<sup>1\*</sup>, Christopher J Millett<sup>1,2</sup>, Preet K Dhillon<sup>1</sup>, SV Subramanian<sup>3</sup> and Shah Ebrahim<sup>1,4</sup>

## Abstract

**Abstract**

**Background:** To investigate the prevalence of obesity and diabetes among adult men and women in India consuming different types of vegetarian diets compared with those consuming non-vegetarian diets.

**Background:** To investigate the prevalence of obesity and diabetes among individuals consuming different types of vegetarian diets compared with those consuming non-vegetarian diets.

**Methods:** We used cross-sectional data of 156,317 adults aged 20–49 years who participated in India's third National Family Health Survey (2005–06). Association between types of vegetarian diet (vegan, lacto-vegetarian, and ovo-lacto-vegetarian), pesco-vegetarian, semi-vegetarian and non-vegetarian) and self-reported diabetes status and BMI were estimated using multivariable logistic regression adjusting for age, gender, education, alcohol use, and television watching.

## Stress at work: A pill or a p

BY DR GIRIDHAR BABU, JULY 31, 2015, DHNS

You must have read a young techie died of heart attack discarding these as frivolous, have you wondered why die so early? We all go to work to make a good living questions have enthused many public health researchers stress.

Studies done in India indicate that nearly one third of untreated, high blood pressure can result in heart and cardiovascular diseases, CVD). Sadly, not many with stroke

live  
mint

## Rahul Shidhaye | Policy needed to check depression

There can be no health without mental health, and so it is high time burden of depression



## from around the world

focus on India

### Impact of a Worksite Intervention Program on Cardiovascular Risk Factors

A Demonstration Project in an Indian Industrial Population

Dorairaj Prabhakaran, MD, DM, MSc,\* Panniyammakal Jeemon, MPH,\* Shifalika Goenka, MBBS, PhD,\* Ramakrishnan Lakshmy, MD,† K. R. Thankappan, MD, MPH,‡ Faruq Ahmed, MD,§ Prashant P. Joshi, MD,|| B. V. Murali Mohan, MD,¶ Ramanathan Meera, MBBS, MPH,‡ Mohan S. Das, MD, DM,\*\* Ramesh C. Ahuja, MD, DM,†† Ram Kirti Saran, MD, DM,†† Vivek Chaturvedi, MD, DM,† K. Srinath Reddy, MD, DM, MSc†††



Dr. Preet Dhillon

Sr. Scientific Officer, Public Health Foundation of India (PHFI)

## Breast cancer in India : Need for greater awareness

important to reflect on the most health Organization (WHO), for the cancer as the most common developing and all 'Western' are over 1.4 lakh new breast

controlling communicable and child health. While there are cancer, less than 50,000 women on maternal healthcare is has been little attention on independence. With increased environments, India now with nearly 10 lakh new cancer of which are increasing, India greening and/or early detection

time (NCCP) in 1975-76 but prevention. However, the by establishing regional cancer Another main task of NCCP Cancer Registry Programme (N

India. While it and understanding the improvement at the very least women, and

cancer, Diabetes wasn't a part of national guidelines remains on rather than

countries and even so due to access to

[Downloaded free from <http://www.ijcm.org.in> on Thursday, January 07, 2016, IP: 125.21.187.66]

### Review Article

## What are the Evidence Based Public Health Interventions for Prevention and Control of NCDs in Relation to India?

Kavita Singh, K Srinath Reddy<sup>1</sup>, Dorairaj Prabhakaran<sup>2</sup>

Centre for Chronic Disease Control (CCDC), New Delhi and Centre for Cardio-metabolic Disease Risk Reduction in South Asia – Centre of Excellence (CARRS – COE), <sup>2</sup>Public Health Foundation of India, <sup>3</sup>CCDC and CARRS-COE, New Delhi, India

### ABSTRACT

The accelerating epidemics of noncommunicable diseases (NCDs) in India call for a comprehensive public health response which can effectively combat and control them before they peak and inflict severe damage in terms of unaffordable health, economic, and social costs. To synthesise and present recent evidence regarding the effectiveness of several types of public health interventions to

# SETTING THE STAGE FOR UNIVERSAL HEALTH COVERAGE IN INDIA

*P*HFI has been at the forefront of technical support and advocacy efforts around India taking forward the agenda of adopting a framework of Universal Health Coverage through the active engagement of all stakeholders. PHFI was the designated secretariat, for the High Level Expert Group (HLEG) on Universal Health Coverage. The group was constituted by the Planning Commission of India in October 2010, under the chairmanship of Professor K. Srinath Reddy with the mandate of developing a framework for providing easily accessible and affordable healthcare to all Indians. The report was released by the Government of India (GoI) in 2012.

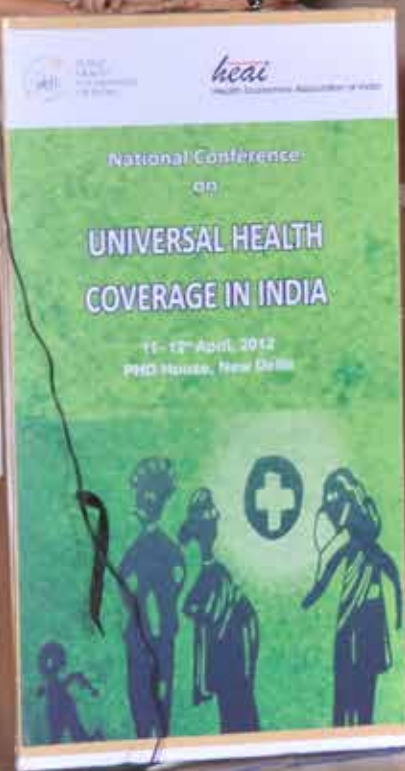
Since the release of the HLEG report, PHFI has embarked on a series of translational and policy research initiatives at state and central levels. Ongoing technical projects

and evaluations include six areas of focus: (1) health financing, insurance and financial protection (2) human resources for health (3) health sector governance and management (3) comprehensive primary health services (4) community involvement and public-private partnerships (5) access to medicines and pharmaceutical sector reforms (6) influencing the social determinants of health (8) awareness of gender issues in relation to access and equity for universal health coverage.

PHFI is currently offering technical support in the roll-out of UHC pilots in 2 districts each in the states of Kerala and Karnataka.

# National Conference UNIVERSAL HEALTH COVERAGE IN INDIA

11-12th April  
PHD House, New Delhi



Professor Gita Sen addressing at the opening session on – **India's UHC: Vision and Roadmap** organised by PHFI and HEAI

LEFT TO RIGHT Prof Gita Sen, Mr Anshu Prakash (MOHFW), Professor Reddy (PHFI), Dr Samit Sharma (IAS), Rajasthan

**hindustan**times

universal coverage is the only cure for health scandals

Vikram Patel

Updated: Dec 18, 2015 01:32 IST



There is a definite need for a standardised unified healthcare system in our country, without such a wide gap between the rich and the poor. (AP Photo)

On a trip to Bihar this week, I came across a story in the local edition of a national newspaper reporting a study by the Bihar chapter of the People's Health Movement. The story reported the cost incurred by a sample of patients who had been admitted to government-run health centres.

They found that the average cost per admission was about seven times the average monthly income of the respondents, which led to high levels of distress sales and borrowing from money-lenders. It was astonishing how these costs were incurred in government facilities, where many believe that care is largely free. Of course, it would come as no surprise to learn that the recent National Sample Survey data reported that the out-of-pocket expenditure has gone up four-fold in the private sector.

HINDUSTAN TIMES, NEW DELHI  
MONDAY, JULY 09, 2012

# A cure for all ills

Physicians must prescribe quality-assured generic drugs that are cheap and effective instead of branded alternatives, writes K SRINATH REDDY

14TL5135

## Review

JG

THELANCET-D-14-05135

S0140-6736(15)00955-1

Embargo: [add date when known]



## Assuring health coverage for all in India

**Successive Government** – Vikram Patel, Rachana Parikh, Sunil Nandraj, Priya Balasubramaniam, Kavita Narayan, Vinod K Paul, A K Shiva Kumar, Miral Chatterjee, K Srinath Reddy

Successive Governments of India have promised to transform India's unsatisfactory health-care system, culminating in the present government's promise to expand health assurance for all. Despite substantial improvements in some health indicators in the past decade, India contributes disproportionately to the global burden of disease, with large health disparities between states, between rural and urban populations, and across social classes persist. A large proportion of the population is impoverished because of high out-of-pocket health-care expenditures and suffers the adverse consequences of poor quality of care. Here we make the case not only for more resources but for a radically new architecture for India's health-care system. India needs to adopt an integrated national health-care system built around a strong public primary care system with a clearly articulated supportive role for the private and indigenous sectors. This system must address acute as well as chronic health-care needs, offer choice of care that is rational, accessible, and of good quality, support cashless service at point of delivery, and ensure accountability through governance by a robust regulatory framework. In the process, several major challenges will need to be confronted, most notably the very low levels of public expenditure; the poor regulation, rapid commercialisation and corruption in health care; and the fragmentation of governance of health care. Most importantly, assuring universal health coverage will require the explicit acknowledgment, by government and civil society, of health care as a public good on par with education. Only a radical restructuring of the health-care system, and not incremental change and eliminates impoverishment due to out-of-pocket payments, can ensure that the health-care system is

*Lancet* 2015; 386: 2422-35

London School of Hygiene & Tropical Medicine, London, UK (Prof V Patel FMedSci); Public Health Foundation of India, Gurgaon, India (Prof V Patel, P Balasubramanian MPH, Prof K S Reddy MD, R Parikh MPH, S Nandraj MA, K Narayan FACHE); Public Health Foundation of India and Royal Norwegian Embassy, Universal Health Initiative, New Delhi, India (P Balasubramanian); Department of Paediatrics, All India Institute of Medical Sciences, New Delhi, India (Prof V K Paul MD); Independent Researcher and Policy Analyst, New Delhi (A K Shiva Kumar PhD); Sewa,

# High Level Expert Group Report on Universal Health Coverage for India

Instituted by the Planning Commission of India

The NEW ENGLAND JOURNAL of MEDICINE

INTERNATIONAL HEALTH CARE SYSTEMS

## India's Aspirations for Universal Health Coverage

K. Srinath Reddy, M.D., D.M.

How does one rate a health system that attracts medical tourism for its high-quality, low-cost advanced care, even as it lags behind many developing countries on key health indicators? What can we

learn from the limited governance of health expenditure? Leaders regarded health expenditures as financially nonproductive social spending, and public financing levels were low. Poorly resourced public services failed to meet the health needs of an expanding population. The emer-

# THE HINDU

## What universal health assurance can mean for India

[Priya Balasubramaniam](#); [Robert Yates](#)



logged areas infested with sewage, debris, uncleared garbage and rain-damaged medical facilities create myriad opportunities for infectious/vector-borne disease outbreaks. — File Photo

## Perspective

JULY 2, 2015

achievable for this country that has made tremendous progress in universal health insurance coverage.

In the last few weeks, India and the world watched in disbelief as Chennai, the second largest city in the country, was crippled by unusually vicious monsoon rains. As the surrounding areas were pounded with over 400 mm of continuous rain, many parts of the metropolis gave way to the deluge of water that inundated large swathes of land, displacing away its residents, infrastructure and powerlines in its wake.

In the aftermath amidst now fetid pools of receding water, city and state and social leaders are grappling with the aftermath of the devastation—more than 300 people dead, several hundred missing, thousands of homes destroyed by flood waters. While poor urban planning, illegal construction and lack of storm water drainage are attributed in large part to the





“Every child has the right to  
be well born.”

—JOHN RUSKIN

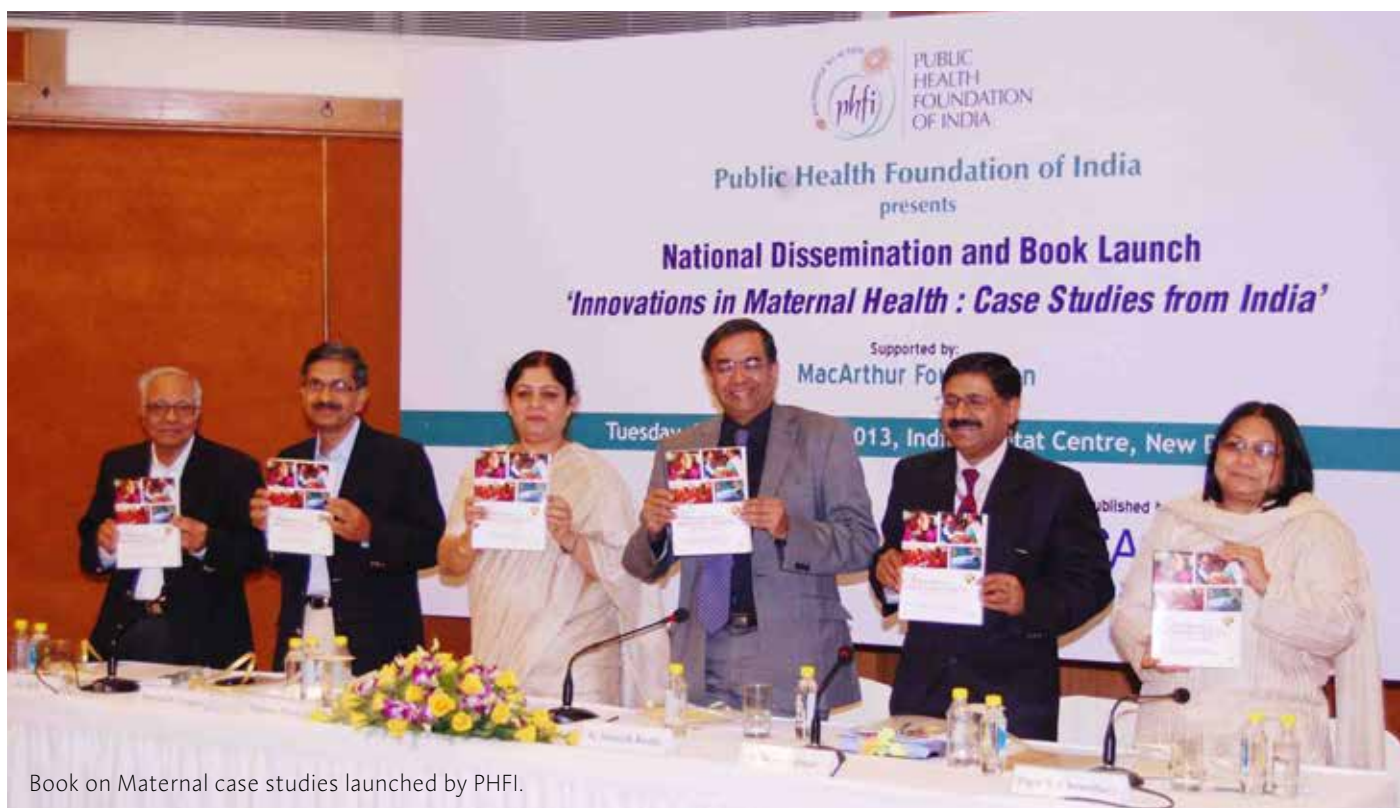


# MAKING A DIFFERENCE IN MATERNAL AND CHILD HEALTH

*H*ealthy women and children are the cornerstone of public health and key to progress in every aspect of human development. Through knowledge generation and advocacy, efforts are being undertaken by PHFI at various levels, to impact the lives of women and children in India. Some of the major initiatives undertaken include:

- An extensive report on neonatal health in the country was developed by PHFI and partners. The State of India's Newborn Report (SOIN)-2014 was released by Hon'ble Former Health Minister Dr Harsh Vardhan, Mr. Bill Gates and Ms. Melinda Gates in September 2014. It highlights existing evidence, implementation status of programmes, innovations for better implementation, and an analysis of health system and policies from the perspective of extending needed care to the newborns.

- A PHFI-led initiative aims to develop and scale up evidence-based interventions to improve Reproductive, Maternal, Newborn and Child Health (RMNCH) behaviours amongst marginalised populations in Uttar Pradesh. This project seeks to layer health programs on women's Self Help Groups (SHGs), created around micro-finance, to increase knowledge, enhance skills, and promote improved behaviour and practices for safer pregnancies, new-born care and child health.
- PHFI is also leading large scale innovative pro-poor programs focused on reducing maternal mortality in India. The study aims to develop a methodology to assess the comparative impact of two large scale programs for financing maternal healthcare in India: Chiranjeevi Yojana (CY), which has a targeted bursary approach versus the conditional cash transfer approach of Janani Suraksha Yojana (JSY).



Book on Maternal case studies launched by PHFI.

- PHFI is working closely with the Government of Haryana and has undertaken two different populations based case control studies for the Use of Sex Selection Drugs (SSDs). Results have shown that the use of these drugs is strongly associated with congenital malformations and stillbirths.
- PHFI has undertaken a study to understand what women need during childbirth and which health care services can best address these needs. The aim of this

effort is to replicate and contextualize in states with similar socio-economic and health parameters.

- PHFI and its constituent IIPH researchers continue to contribute to maternal and child health through implementation research, field work, reports, books and publications. PHFI has also compiled a compendium of innovative programme practices in family planning delivery and case studies on maternal health for health professionals and academicians.

# NEWS & PUBLICATIONS

## THE ASIAN AGE

Delhi | Mumbai | Kolkata | London

### Ek shahenshah ne banwa ke haseen Taj Mahal...



Dileep Mavalankar

Since the brutal gang India has been a top finally got some soci Budget, the finance women's bank to e

In public health, it combine — pover poor, physically p vulnerable when childbirth. Taj Ma beloved wife Mu ruler, but it also called this the "monument of s problem. Around the sa Queen Ulrika survived. Sw call doctors her delivery expertise to

## The Telegraph

calcutta, india

### Shut up and give birth

At health centres, moms miss human touch

- Jharkhand shows how Centre's scheme for mothers lacks human touch

G.S. MUDUR

### WHAT'S WRONG

Janani Suraksha Yojana, a Union government initiative for would-be mothers to promote deliveries at health centres rather than at homes, lacks

Compassion | Privacy | Comfort | Timely transport



A health centre in Jamtara

## THE TIMES OF INDIA

### Ask women what they want!

IANNS | Aug 22, 2012, 02.55PM IST

Was the labour room clean, was the medical staff polite and caring, were the mother and baby looked after properly? These are among questions proposed to be asked of women post delivery to determine if the quality of services provided at rural health centres was satisfactory and met expectations.

respect for the woman's privacy, and good behaviour by the medical staff --



## Innovations in FAMILY PLANNING

Case Studies from India

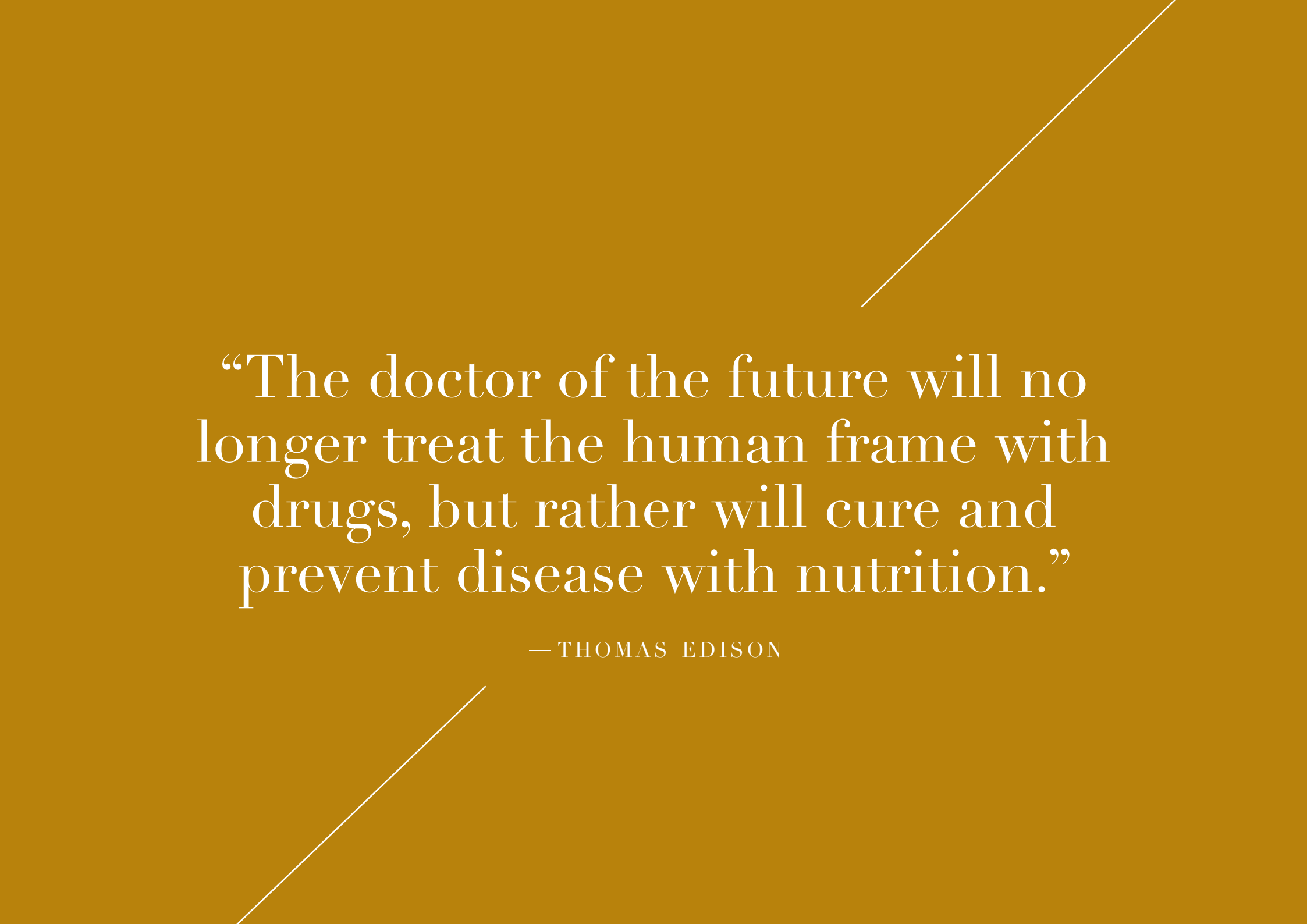
Edited by

JAY SATIA • KAVITA CHAUHAN  
ARJUNA BHATTACHARYA • NIRMALA MISHRA





PHFI works on research projects which promote healthy diet and nutrition.  
*Photo Credit: CCDC and PHFI*



“The doctor of the future will no longer treat the human frame with drugs, but rather will cure and prevent disease with nutrition.”

— THOMAS EDISON

# FUTURE OF NUTRITION AT THE TIME OF DEVELOPMENTAL TRANSITION

*P*HFI is committed to reducing nutrition-related problems in India by being involved in nutrition research, advocacy, policy development, and capacity building. In order to identify the current strengths and gaps in the area of nutrition-relevant capacity in India, PHFI is performing an assessment of the curriculum and capacity of institutions that offer academic programs in nutrition in India, followed by in-depth case studies of centers of excellence in research and academia. PHFI is also conducting focus group discussions with young professionals and scholars as well as key informant interviews with leaders in the field of public health nutrition to identify the future roadmap of public health nutrition education and formulate an international standard curriculum in public health nutrition.

The post graduate Diploma in Public Health Nutrition, offered by PHFI as a distance education programme, has proved popular amongst Indian and International registrants. The MPH programmes will also now offer a stream in public health nutrition.

**The Transform Nutrition research program consortium (TN)**, of which PHFI is a part, aims to transform thinking and action on nutrition. The objective of TN is to strengthen the content and use of nutrition-relevant evidence to accelerate under-nutrition reduction through this decade in the two highest burden regions of South Asia and sub-Saharan Africa, with special focus on four high-burden countries: Kenya, India, Bangladesh, and Ethiopia. As TN's regional head of the Capacity Strengthening Working Group for South Asia, PHFI is actively involved in the



Indigenous foods study in Jharkhand by IIPH Delhi; Dissemination activity in the tribal community where the food environment was studied



Importance of a healthy diet and use of cooking oils demonstrated to the community in the DISHA project in Gujarat

development of short public health nutrition courses, leadership training, distance-learning initiatives, and detailed audits of nutrition-relevant capacity in India. As part of this initiative, PHFI launched the **India Health Report: Nutrition 2015** which provides an evidence-based assessment of current achievements and challenges related to maternal and child nutrition in India. The report provides a rigorous analytical overview of the current trends, challenges, and puzzles related to maternal and child nutrition in India, and highlights the role of policy in improving a wide range of nutritional outcomes, especially at the state level.

PHFI is also committed to study, assess, and reduce **severe acute malnutrition (SAM) among children**. SAM is a major cause of morbidity and mortality in Madhya Pradesh, with estimates from the National Family Health Survey (NFHS)-3 indicating 12.6 percent of children below five years are suffering from SAM in the state. The Government of Madhya Pradesh has established Nutrition Rehabilitation Centres (NRCs) for in-patient management of children with severe acute malnutrition.

PHFI collaborated on the **POSHAN (Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India)** initiative, along with the International Food Policy Research Institute (IFPRI) and the Institute of

Development Studies (IDS), Sussex, with support from the Bill & Melinda Gates Foundation. POSHAN aims to build evidence on effective actions for nutrition and support the use of evidence in decision-making.

A multi-stakeholder advocacy and dissemination meeting of 200 key persons was held to launch the **Lancet Series on Maternal and Child Nutrition, 2013**. The event, widely covered by the media, focused on the changing dimensions of the discourse on global nutrition. It was hosted by PHFI and the Coalition for Sustainable Nutrition Security in India, with support from IFPRI and the Micronutrient Initiative.

PHFI is also undertaking a **Community Intervention to Improve Growth among Children under Two in Rural India** to improve growth among children under two, in two rural districts of Jharkhand and Odisha, where over 60 percent of children were stunted. The project team implemented an intervention involving a village-based community health worker (CHW), modeled on the Anganwadi worker and the results of the study will be released in October 2016.

**Trans-fats** have been shown to contribute to adverse cardiovascular outcomes. A common source of trans-fats in the Indian diet is from foods prepared in partially hydrogenated vegetable oils. Knowledge of the levels

of trans-fats in snacks and consumption patterns of oil in households will help in raising consumer awareness. The project on effect of heating on the trans fatty acid content of commonly consumed Indian edible oils and fried snacks in South Delhi, is concerned with analyzing trans-fats in deep fried, ready-to-eat snacks (and the oils they are fried in) commonly sold in the market. The project will also survey oil consumption and usage patterns amongst a subset of households in south Delhi. The other nutrition project undertaken by PHFI is end line **Evaluation of the Wheat Flour Fortification Project** (funded by World Food Programme).

Professor K. Srinath Reddy is a member of the **Global Panel on Agriculture and Food Systems for Nutrition**, an independent group of high-level, influential experts with a commitment to tackling global challenges in food and nutrition security. The panel is developing recommendations for aligning agriculture and food systems support to the goal of improving access to nutritious foods at every stage of life. Funded by the UK Department for International Development, and the Bill and Melinda Gates Foundation, the Global Panel aims to stimulate a stronger evidence-base for how changes in agriculture and food systems can improve nutrition and catalyse collaboration to help provide a healthy and sustainable diet for all.

Professor K. Srinath Reddy, has also served as one of the commissioners on the **WHO Commission for Ending Childhood Obesity (ECHO)**, the Commission (2014-16) was tasked with producing a report specifying approaches and combinations of interventions likely to be most effective in tackling childhood and adolescent obesity in different contexts around the world. The Commission delivered its report to the WHO Director-General in January 2016 and its recommendations will be conveyed to the World Health Assembly in May 2016. Dr. Monika Arora, Director of Health Promotion Division and Associate Professor, PHFI is an invited Member of Ad Hoc Working Group formed by World Health Organization's Director General to advise on Implementation, Monitoring and Accountability for Ending Childhood Obesity (ECHO).



Honourable Ministers Smt. Maneka Gandhi (Women and Child Development) and Sh. JP Nadda (Health and Family Welfare) released the 'Made in India: Good Nutrition for All: Implications of the Global Nutrition Report and the India Health Report for Nutrition Security in India', a joint initiative of the Public Health Foundation of India (PHFI) and the International Food Policy Research Institute (IFPRI)

# NEWS

THE NEW  
INDIAN EXPRESS

BHUBNESHWAR

Patient-centred Approach to Counter Multi-Morbidity

News Service Published: 22nd May 2014 09:47 AM

NuFFooDS  
Spectrum

Dr Shweta Khandelwal, Research Scientist and Asst. Prof (PHN), Public Health Foundation of India (PHFI), New Delhi

Is Nutrition Security attainable by providing Food security alone? Are the terms synonyms?

The question of food security hinges primarily upon adequacy of food. However, through the adequacy of food that nutrition security is targeted. If nutritional needs are met with, both in terms of quantity (adequate availability of essential macro- and micro-nutrients).



availability of food. However, what needs to be ensured is that the nutritional needs are met with, both in terms of quantity (adequate availability of essential macro- and micro-nutrients).

## The Telegraph

calcutta, india

4 out of 10 kids stunted

G.S. Muduc

New Delhi, Dec 11  
agricultural and human potential

The proportion of undernourished children in India has declined over the last decade, a report has said.

But, the report says, the proportion of undernourished children in India has declined over the last decade, a report has said.

"We're starting to see the benefits of the New Delhi collaboration with the government of India."

China, during the 1990s, in contrast, had a high rate of undernourishment. In Madagasca

NDTV

Indian Kids Continue To Be Under-Nourished: Health Minister

IANNS, Modified: December 11, 2015 13:32 IST



Comments

NDTV

## Misleading ads: food regulator steps in

New Delhi: They are snazzy, slick and smooth but do these ads feed us made up research and

## Business Standard

### Stunting in children declined in past decade: Report

In Uttar Pradesh, 50.4 per cent children malnourished, the highest in the country  
BS Reporter | New Delhi December 11, 2015 Last Updated at 00:23 IST



Authority of Inc

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Shweta Khandelwal  
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In turn

# THE HINDU

» TODAY'S PAPER » OPINION

Published: December 13, 2015 00:00 IST | Updated: December 13, 2015 05:44  
IST December 13, 2015

Invest in our girls

# THE ECONOMIC TIMES

## % of world's stunted children are in India— Global Nutrition Report 2015

nutrition rates still high in India despite positive growth!

[Chavan](#) Dec 11, 2015 at 10:52 am



## THE ASIAN AGE

Delhi | Mumbai | Kolkata | London

### 39 per cent kids below 5 years are stunted

Dec 11, 2015 - TEENA THACKER |

New Delhi

Home

## MAIL TODAY

Read by those who matter

### Women fare badly in health report

Women's health and status are known drivers of poor nutrition, especially education



Neeu Chandra Sharma

New Delhi, December 11, 2015 | Posted by [Anand Jayaram](#) | UPDATED 10:08 IST



## THE NEW INDIAN EXPRESS

CUTTACK

### Obesity Spreads beyond Affluent Children

By Express News Service - CUTTACK Published: 22nd March 2014 11:30 AM

Even as rise in childhood obesity has become a cause of concern, the phenomenon is spreading to hitherto insulated population beyond the affluent sections, as

## Business Standard

### Malnutrition in India is declining faster than before

Even with impressive improvement in human potential in any country

ANI | New Delhi December 11



Child [malnutrition](#) rate that 39 % of all children

Multiple stunting problem represents the largest loss of

## THE TIMES OF INDIA

### Malnutrition down, but not enough

TNN | Dec 11, 2015, 02:32 AM IST



## National Initiative for Allied Health Services (NIAHS) - PHFI assists GOI-MoHFW program for developing allied health professionals



Dr Subash Salunke, PHFI, Shri Keshav Desiraju, Former Health Secretary, GOI, Shri Ghulam Nabi Azad, Former Union Minister for Health and Family Welfare, GOI and Professor K. Srinath Reddy, President, PHFI unveil National Institute of Allied Health Sciences Report by PHFI

"The importance of public health in India's development cannot be over emphasised. Ours is a demographically young country. The largest growing demographic segment in India over the next two decades lies between 15 and 59 years. This provides a wide window of opportunity to enhance national growth, provided we can productively deploy this vast human resource"

—Dr Manmohan Singh  
Former Prime Minister of India



Prof. K Srinath Reddy with Mr R Prasanna, IAS, Director Health Services, Sh Ajay Chandrakar, Minister of Health, Government of Chhattisgarh, Shri. Avinash Champawat, Commissioner Health, and Mr Prasanta Dash UNICEF Head Chhattisgarh at the signing of the MoU to provide technical support to the state government of Chhattisgarh for improving Human Resources for Health

# WORKING FOR SOLUTIONS IN DISABILITY: THE SOUTH ASIA CENTRE FOR DISABILITY INCLUSIVE DEVELOPMENT & RESEARCH (SACDIR)

*W*orld Health Organization (WHO) estimates put 650 million people, globally, living with some disability (physical, mental, visual, hearing, learning, speech and intellectual). Low/ middle income countries account for 80% of this burden. In India, 26 million (2.2%) people suffer from disability, according to the 2011 Census. While disability is now understood as a public health problem, a health systems approach calls for a closer look at evidence of successful delivery initiatives in the larger South Asian context.

A centre of excellence SACDIR, was established in 2010, under the aegis of PHFI, in collaboration with and support from the London School of Hygiene and Tropical Medicine (LSHTM), and its component research facility, the International Centre for Eye Health (ICEH), London, UK. The mission for the centre is 'Inclusive Millennium: Evidence for Empowering Persons with Disabilities'.



Testing for near vision using an E-chart

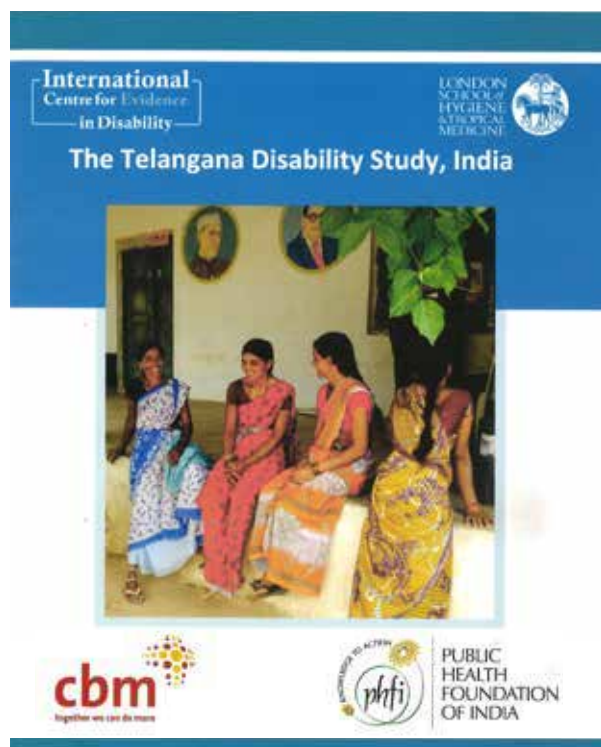


Person with disability conducting a household survey in Telangana



A field investigator conducting otoacoustic emission test

# WORKING TOWARDS THE PREVENTION OF AVOIDABLE BLINDNESS



Report by IIPH – H on Disability in Telangana



PHFI is working towards increasing awareness and control of Retinopathy of prematurity (ROP)

Diabetic Retinopathy and Retinopathy of Prematurity are the leading causes of blindness among working adults and infant blindness respectively. Timely management through effective screening and referral is critical to prevention. The Queen Elizabeth Diamond Jubilee Trust, in partnership with PHFI and the LSHTM, supported IIPH-H in conducting a multi-site situational analysis. Prevention of both conditions is high priority in building the capacity of both public and private providers.

This effort aims to assess the general health system's capacity to tackle identify and appropriately manage persons with these problems, and to search for elements that may help to mould successful models for service delivery, modalities and management protocols for care and public awareness.



PUBLIC  
HEALTH  
FOUNDATION  
OF INDIA



THE QUEEN ELIZABETH  
DIAMOND JUBILEE TRUST

LONDON  
SCHOOL of  
HYGIENE  
& TROPICAL  
MEDICINE



# Diabetic Retinopathy Summit

Developing a national strategy for the prevention, detection and treatment  
of a major cause of avoidable blindness

12-14 April 2014, Hyderabad



Launch of the Diabetes Retinopathy Summit in Hyderabad  
Supported by : The Queen Elizabeth Diamond Jubilee Trust  
Collaborating Institution: London School of Hygiene and Tropical Medicine (LSHTM)

# NEWS & PUBLICATIONS

Business Standard

12<sup>th</sup> April, 2014

Sat, Apr 12, 2014

Metro India

UK-based trust, partners to reach out diabetics for retinopathy

## Public lacks awareness of diabetic retinopathy: Study

AMOGA LAXMI SUKKA/HYDERABAD

Lack of awareness about the importance of regular eye tests and uncontrolled blood sugar levels among diabetics has been resulting in diabetic retinopathy that could lead to loss of vision if not diagnosed early.

More than half of the patients visiting ophthalmologists in the country have been suffering from diabetes for over 10 years and 15 per cent have been living with the condition for over 20 years, a study done by...



Business Standard

Hyderabad April 11, 2014

## India needs more technicians to detect diabetes-related eye

Press Trust of India |

India needs to train enough technicians for early detection of an eye disease associated with diabetes, as the number of patients with the ailment is expected to touch over 10 million 2030 in India, according to experts.

The disease, diabetic retinopathy (DR), may lead to loss of sight over a period, if it goes undetected.

Clare Gilbert, Professor and Co-Director, International Centre for Eye Health, London School of Hygiene and Tropical Medicines, said there are not enough ophthalmologists in India who can detect these cases in diabetic patients and hence the government and civil societies need to train technicians to detect retinopathy cases in the early stages.

...train technicians to screen people with diabetes and retinopathy. It is not ...the diabetic patients," Gilbert said at a

...cant initiatives in India, the five-year 'Diabetic Retinopathy Action Plan' ...ing a detailed India roadmap

Hyderabad April 11, 2014 Updated at 17:22 IST



## మధుమేహం పట్ల అవగాహన పెం

...అవగాహన పెంపొందించేందుకు ప్రభుత్వం చేపట్టిన అనేక కార్యక్రమాలకు 11 ఏప్రిల్ నాటికి మధుమేహం అంటున్న వారి సంఖ్యను తగ్గించే ప్రయత్నం చేపట్టినందుకు ప్రభుత్వం సంతోషం వ్యక్తం చేసింది. ప్రభుత్వం చేపట్టిన అనేక కార్యక్రమాలకు 11 ఏప్రిల్ నాటికి మధుమేహం అంటున్న వారి సంఖ్యను తగ్గించే ప్రయత్నం చేపట్టినందుకు ప్రభుత్వం సంతోషం వ్యక్తం చేసింది.



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...y October and set for implementation from ... can work towards prevention, early detection of blindness associated

...ns having one million population, mostly Tier II and III locations, said GVS Mur  
Delhi-based Public Health Foundation of India, which is partnering the programme

...dia has 60-65 million diabetic population with 6-7 million facing serious

...which can be replicated in o

# First of its kind Pan-India "Certificate Course in Evidence Based Management of Diabetic Retinopathy" Announced

Applications invited till 15th January 2016 for this unique 4 months executive on-the-job program India aiming to train and develop competencies of Primary Care Physicians to improve patient early diagnosis and evidence based treatment in management of Diabetic Retinopathy.

Dec 24, 2015 11:40 AM

New Delhi, India

Recognising that Diabetic Retinopathy is likely to pose a public health challenge in India complications of diabetes, the first of its kind Pan-India Certificate Course in Evidence Based Retinopathy (CCDR Cycle II) was announced today.

The course is designed, delivered and implemented by Public Health Foundation of India (PHFI) academic partners Dr. Mohan's Diabetes Education Academy (DMDEA), Chennai; Aravind Eye Care Madurai and supported by an educational grant from The Queen Elizabeth Diamond Jubilee Trust (funding from The Leona M. and Harry B. Helmsley Charitable Trust).

Diabetic retinopathy (DR), one of the foremost causes of blindness world-wide, is a neurovascular dis

# THE HINDU

HYDERABAD, SATURDAY, APRIL 12, 2014

## Diabetics risk losing eyesight

Study says more than 50 p.c. patients visiting eye doctors are diabetics

Staff Reporter

HYDERABAD: More than half the patients visiting an eye doctor had had diabetes for over 10 years, 15 per cent of them for 20 years, making them high-risk groups for vision loss, says a multi-city India study on Diabetic Retinopathy (DR).

The study, conducted by the Public Health Foundation of India in collaboration with Queen Elizabeth Diamond Jubilee Trust and London School of Hygiene and Tropical Medicine, says 45 per cent of patients had lost their vision before they knew they suffered from DR.

### Little awareness

"It's clear there is a lack of awareness on diabetes and its obvious link to vision loss. Hyderabad is the diabetic capital of South Asia and screening and awareness campaigns should be more fo

EYES RIGHT



50% hospitals do not have a system to track patients for follow-up

45% DR patients had visual loss before condition was diagnosed

33% patients reported that they received no info on DR from care givers

67% were unaware of that poor control of diabetes risked DR

Most state-run diabetes facilities do not have DR services

70% medical staff were untrained in ophthalmoscopy

50% eye hospitals acknowledge that their personnel required training on medical retina

It's clear there is a lack of awareness on diabetes and its obvious link to vision loss. Hyderabad is the diabetic capital of South Asia and screening and awareness campaigns should be more focussed here.

G.V.S. MURTHY, DIRECTOR, INDIAN INSTITUTE OF PUBLIC HEALTH.

Murthy told reporters. Interestingly, the study said 40 per cent of the pa

tients in public hospitals, and 13 per cent in private facilities, did not receive any information about diabetes and its complications from care givers. Fifty per cent private eye clinics acknowledged that there was a need to train their health workers on DR.

"Public health institutions in India should strive to provide one-stop service to diabetics. Patients should have access to diabetologists, kidney (nephrologist) and eye (ophthalmologist) doctor, foot check-up, dietician, and diagnostic services like urine and blood tests under one roof. There is also a need train personnel to detect DR," said Queen Elizabeth Diamond Jubilee Trust CEO Astrid Bonfield.

### State services fall short

The study acknowledged that government-run diabetic clinics did not have services on DR, 70 per cent of the facili

ties (public and private) had no dieticians, a third of the patients (33 per cent) received no health education on DR and two-third of DR patients did not know that diabetes is the reason for their condition.

"Early detection and management is the key to save patients from losing their vision. There is no organised screening and management programmes for DR in India and there is a need to evolve a sustainable model to control DR and reduce its risk by better control of diabetes," summed up Dr. Astrid.

The study was conducted in Hyderabad, Mumbai, Delhi, Bangalore, Ahmedabad, Chennai, Kolkata, Surat, Pune, Jaipur, Bhubaneswar, Madurai, Thiruvananthapuram and Noida and covered a total of 86 eye clinics, 73 diabetic facilities and nearly 850 patients in the last four months.

2014

హైదరాబాద్

## మధుమేహ బాధితుల్లో రెటినోపతి తీవ్రం

బాధితుల్లో 18 శాతం మంది వారే

సకాలంలో గుర్తించడం లేదు

రేపటి నుంచి మూడు రోజుల పాటు సదస్సు

రస వైద్యాధికారి గీతాప్రసాదాని వివరించారు. నేషనల్ ప్రాజెక్ట్ ఫర్ డివైన్స్ కంట్రోల్ కేన్సర్, డయాబెటిక్, కార్డియో వాస్కులర్లపై ప్రాజెక్ట్ కార్యక్రమాన్ని చేపట్టామన్నారు. హైదరాబాద్లో 9.3 శాతం ప్రజలు రక్తపోటు సమస్యను ఎదుర్కొంటున్నారని ఆమె

అంధ్రప్రదేశ్, హైదరాబాద్ సీటీ: మధుమేహ బాధితుల్లో రెటినోపతి సమస్య తీవ్రతరం అవుతుందని, సకాలంలో దీనిపై మేలుకోకపోతే పూర్తి అంధత్వం వచ్చే ప్రమాదముందని వైద్యులు, అధికారులు హెచ్చరించారు. మధుమేహ రెటినోపతి సమస్యపై విస్తృతంగా చర్చించడానికి శని, ఆది, సోమ వారాల్లో సదస్సును నిర్వహిస్తున్నట్లు వారు తెలిపారు. మధుమేహ రెటినోపతిపై శుభ్రవారం పబ్లిక్ హెల్త్ ఫౌండేషన్ ఆఫ్ ఇండియా(పీహెచ్ఎఫ్ఐ), కీన్స్ ఎలిజబెత్ డైమండ్ జూబ్లీ



Media Briefing  
11 April 2014, Hyderabad

మధుమేహ రెటినోపతిపై సమావేశంలో మాట్లాడుతున్న వైద్యులు

ట్రస్ట్ విలేజరుల సమావేశం నిర్వహించింది. కార్యక్రమంలో పీహెచ్ఎఫ్ఐ డైరెక్టర్ జీవీఎస్ మూర్తి, జయరాం, వైద్యాధికారి గీతాప్రసాదాని, ఆస్టిడ్ బోనఫీల్డ్, జోసెఫ్ డాన్వర్త్, డాక్టర్ తైరజీలేట్ పాల్గొన్నారు. ఈ సందర్భంగా వారు మాట్లాడుతూ మధుమేహాన్ని గుర్తించిన వెంటనే నేత్రాలపై దృష్టి పెట్టాలని సూచించారు. మధుమేహం నియంత్రించ లేకపోతే అనేక నష్టాలు తలిగే ప్రమాదముందన్నారు. దీని వల్ల కిడ్నీ ఫెయిలర్, గుండె సమస్యలు వస్తాయన్నారు. మధుమేహం

మంది మధుమేహం వడం లేదు మేహం నియంత్రించుకోవాలన్నారు. నేటి సందర్భంగా ప్రజలు ట్యూబ్

ANDHRAJYOTHI

## ఆంధ్రజ్యోతి

శనివారం

Hyderabad

హైదరాబాద్

12-4-2014

20 పేజీలు



2014

హైదరాబాద్

## మధుమేహ బాధితుల్లో రెటినోపతి తీవ్రం

అంధ్రప్రదేశ్, హైదరాబాద్ సీటీ: మధుమేహ బాధితుల్లో రెటినోపతి సమస్య తీవ్రతరం అవుతుందని, సకాలంలో దీనిపై మేలుకోకపోతే పూర్తి అంధత్వం వచ్చే ప్రమాదముందని వైద్యులు, అధికారులు హెచ్చరించారు. మధుమేహ రెటినోపతి సమస్యపై విస్తృతంగా చర్చించడానికి శని, ఆది, సోమ వారాల్లో సదస్సును నిర్వహిస్తున్నట్లు వారు తెలిపారు. మధుమేహ రెటినోపతిపై శుభ్రవారం పబ్లిక్ హెల్త్ ఫౌండేషన్ ఆఫ్ ఇండియా(పీహెచ్ఎఫ్ఐ), కీన్స్ ఎలిజబెత్ డైమండ్ జూబ్లీ

బాధితుల్లో 18 శాతం మంది వారే

# IMPROVING HEALTH OUTCOMES THROUGH WASH

*W*ater, Sanitation and Hygiene (WASH) are widely recognised social determinants of health. Evidence links lack of safe water, adequate sanitation and poor hygiene practices to high disease burden, high mortality and morbidity, and poor state of health and well-being especially impacting women, infants and young children. PHFI's work on WASH has so far largely centred on menstrual hygiene management (MHM), WASH in health facilities, and gender responsive sanitation.

In 2014, PHFI undertook a policy scoping review on MHM, examining how four ministries in the Government of India addressed the hardware (i.e., infrastructure needs) and software (i.e., behaviour change) components of MHM. This study was commissioned by WaterAid India and supported by DfID. The study found that, to a large extent, policies focused on the hardware MHM component, with less attention to the software

component. Further, ministries talked about convergence across programs to comprehensively address MHM, yet program documents did not operationalise how this convergence would be brought about.

PHFI led the development of a framework for action on MHM, along with a core set of indicators to assess action on MHM, supported by DfID. This was in response to key gaps identified by organizations working on MHM and drawing on policy scoping work. This framework and indicators have been vetted with key stakeholders working on MHM and have been shared widely. Some of these indicators will be incorporated into the MHM guideline under the Swachh Bharat Mission.

The launch of the Swachh Bharat Mission has ensured the installation of toilets across the country, aimed at ending open defecation. However, responsiveness to women's menstrual hygiene needs has yet to be reflected as a



PHFI undertook a policy scoping review on menstrual hygiene management  
Collaborating Institution: WaterAid India. Supported by DfID

major programme priority. In order to address this gap, PHFI partnered with RTI International and undertook a study with women in Ahmedabad slums to examine how an innovative toilet prototype (with on-location waste treatment) met women's MHM needs. This study found that for the RTI prototype to meet women's menstrual hygiene needs, the model will have to take into consideration women's use of menstrual absorbents, their beliefs and practices around disposal of menstrual waste, and their discomfort with using recycled water for washing.

Professor K. Srinath Reddy is a serving member of the technical group of the Rapid Assessment Learning Unit (RALU), constituted by the Ministry of Rural development to assess progress in the sanitation mission.





# DH



DECCAN HERALD

Tuesday 01 September 2015  
News updated at 11:09 AM IST

## NEWS

### Change behaviour to ease India's tough 'swachh' dream

Dr Subhadra Menon, Aug 29, 2015, DHNS:

Barely had the dust and excitement of the Independence Day action settled on the Red Fort in Old Delhi, for the second time in the year, the city got engulfed in stinky, unmanageable piles of garbage, all spilling out of the dumps onto the road.

So, while Prime Minister Narendra Modi's I-Day speech resounded with the golden promise of a Team India beaver away to dramatically improve the access our countrymen and women have to toilets and the great dream of a Swachh Bharat, a simple management issue like the chronic shortage of workers (because they were off work owing to Independence Day) led to a stinking paralysis in garbage disposal.

This was a fairly rapid repeat of a similar situation just two months ago, when protesting against non-payment of their salaries for over two months, sanitation workers of the East Delhi Municipal Corporation deliberately threw garbage all over the streets so as to grab the government's attention.

Providing facts to back-up what most Indians don't need a survey to be enlightened by is a recent assessment by the Ministry of Urban Development of the Swachh Bharat Abhiyaan, releasing cleanliness rankings for 476 cities. 39 cities from the Southern states are among the top 100 followed by 27 from the East, 15 from the West, 12 from the North and 7 from the North-Eastern states.

Delhi, as the capital city, is at a dismal 379, although its New Delhi Municipal Corporation has the distinction of being No 16! With minimal open defecation and effective solid waste management, seepage and water management as yardsticks, the survey places the southern city of Mysuru in Karnataka on top and Damoh in Madhya Pradesh at the bottom.

If you were to shut your eyes for a moment and try to think of a clean India, chances are a million images will flit by. Public places in India are often characterised by great grubbiness and while we aren't very effective with managing our garbage; the situation with toilets is as bad, if not worse. Just about 50 per cent homes have access to a toilet, and the situation of public toilets across the country is pitiable,



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# TECHNOLOGIES FOR TRANSFORMATION

# TAKING FORWARD NEW PARADIGMS IN PUBLIC HEALTH: AFFORDABLE HEALTH TECHNOLOGIES

The Public Health Foundation has been working in the field of Affordable Health Technologies with a multi-pronged approach, including creating and sustaining an ecosystem for innovation in health technologies and developing new technologies for both healthcare delivery and for public health education. Initiatives by PHFI and the IIPs in this area include:

## **AUTOMETRY**

IIPH Hyderabad is piloting a mobile phone based application that can automatically assess in real time — the height, weight, Body Mass Index and nutritional status. Effective nutrition management is based on

anthropometry. Although anthropometry is less accurate than clinical and biochem indicators in assessing individual nutritional status, it may be used as a screening device to identify individuals at risk of under-nutrition. It therefore becomes a viable technique, given the resource constrained situations in remote rural areas across India.

## **DAS SIMPLE**

IPH-Hyderabad has developed a mobile application for people with disabilities that can guide assessment, automate calculation, provide instant analysis, certify, and then link the person to customized benefits and also continuously track the outcomes. At present Disability Certification Guidelines are complex set of



DREAM-DOTS: DRONE + EHR linked AutoMated Directly Observed Treatment, Short Course for Tuberculosis. Supported by DJI Corp, Shenzhen, China Project undertaken by IIPH - Hyderabad

mathematical calculations, based on expert assessment of physical parameters and range of movements. Less than 10% of the disabled have certifications. Persons with disability are among the most excluded ones in the development process of the country, and the App developed by IIPH-Hyderabad attempts to bring inclusion and help them avail of existing benefits at their doorstep. It would directly help the individual, the intermediary service provider and the country's economy by enabling employment.

**DREAM-DOTS: DRONE + ELECTRONIC HEALTH RECORDS (EHR) LINKED AUTOMATED DIRECTLY OBSERVED TREATMENT, SHORT COURSE FOR TUBERCULOSIS**

The DREAM DOTS proposal makes DOTS take flight on EHR linked drones to the point of need and comprehensively deliver faster promotion, surveillance,

diagnosis, treatment and follow up at the patients' door step. This is being piloted by the team at the Indian Institute of Public Health, Hyderabad. The benefits of DREAM DOTS: (1) To the patient- (a) saving at least eight trips to the health care facility for diagnostics and treatment; (b) in effect save time and money; (c) possibility of service at a convenient time; (2) To the Health System-(a) fewer and improved links in the TB management system; (b) better control over service quality in labs, medicine distribution; (c) possibility of zero-delay service, continuous service monitoring/ reporting in real time with automated decision alert analytics; (d) a platform that can fast track newer innovations for better TB management.

# THE HINDU

SCI-TECH » HEALTH

Published: August 23, 2015 17:00 IST | Updated: August 22, 2015 17:57 IST August 23,

## App for cardiovascular management shows promise

• [R. Prasad](#)

Researchers have found a way to improve the quality of primary care and clinical outcomes cost-effectively by using a smart phone application for cardiovascular management program (SimCard). A trial was conducted in India and China. The trial, which is the first dual-country trial of its kind worldwide, was delivered by community health workers and is ideal in resource-constrained settings.

The trial carried out in 20 villages in Haryana, and 27 villages in Tibet used an intervention that focussed on two lifestyle modifications (smoking cessation and salt reduction) and use of two medications (blood pressure lowering agents and aspirin).

The trial increased the adherence to anti-hypertensive medications by 25.5 per cent in the intervention group. However, the uptake of aspirin medication was more (24.5 per cent) than in India (9.8 per cent). Similarly, a "significant net reduction" of over 4 mm Hg in systolic blood pressure was seen in China; there was no significant reduction in the case of India.

Over 16 per cent increase in the proportion of high-risk patients receiving follow-up was seen in both countries. However, no changes in lifestyle were seen in 2086 individuals with high CVD risks — over 40 years old with a self-reported history of CVD and a measured systolic blood pressure over 160 mm Hg. The results were published recently in the journal Circulation.

The study was carried out by the Public Health Foundation of India (PHFI) in collaboration with the All India Institute of Medical Sciences (AIIMS) in Delhi, the George Institute for Global Health at Peking University Health Science Centre in Beijing, and in collaboration with Tibet University in China.

# THE HINDU

SCI-TECH » TECHNOLOGY

Published: August 15, 2015 01:05 IST | Updated: August 15, 2015 01:07 IST HYDERABAD, August 15, 2015

## Drones tested to deliver drugs



[M. Sai Gopal](#)



### Special Arrangement

A drone that carries medicines will soon become a reality.

In a novel scheme of utilizing technology in healthcare, researchers at the Indian Institute of Public Health (IIPH) in Hyderabad are testing drones (unmanned aerial vehicles) to deliver drugs.

On a pilot basis, the researchers have been testing a drone at a Primary Health Centre (PHC) at Moinabad, Ranga Reddy district, about 50 kilometres from Hyderabad. The

# SWASTHYA SLATE: REVOLUTIONISING DIAGNOSTICS FOR THE UNDERSERVED

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The Wall Street Journal  
listed Swasthya Slate as  
one of the 6 healthcare  
devices which could help  
millions of people

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The Affordable Health Technologies division of PHFI has been developing innovative technologies for increasing the efficacy and outreach of primary healthcare in India. PHFI forayed into the field of health technologies with *Swasthya Slate*, an affordable, easy to use device that runs on Android supported tablets or phones and enables a range of medical diagnostics using a single kit. Swasthya Slate can empower rural frontline healthcare workers to provide diagnostic tests to the poor in far-flung areas. The average learning time of this tool is five minutes and thirty seconds. Results are instant and the cost of conducting these tests is significantly below prevailing market prices.

Swasthya Slate has been introduced as part of a pilot study under the RMNCH+A in Jammu and Kashmir in six districts under the Norway – India Partnership Initiative. 16,000 mothers have been registered for ante-natal care as part of this programme till date. Swasthya Slate is also being introduced by the Delhi Government in its *Mohalla* Clinics.

Swasthya Slate's potential impact on public health has been recognized both nationally and internationally.



ANM using the Swasthya Slate tablet



Swasthya Slate being used in a Delhi Govt's Mohalla Clinic

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Developed 'Swasthya Slate' (electronic tablet for point-of-care diagnostics, relevant for primary healthcare and for use by community health workers); being considered by National/State/ International Governments. Already deployed for RMNCH+A implementation in Jammu and Kashmir by MoHFW

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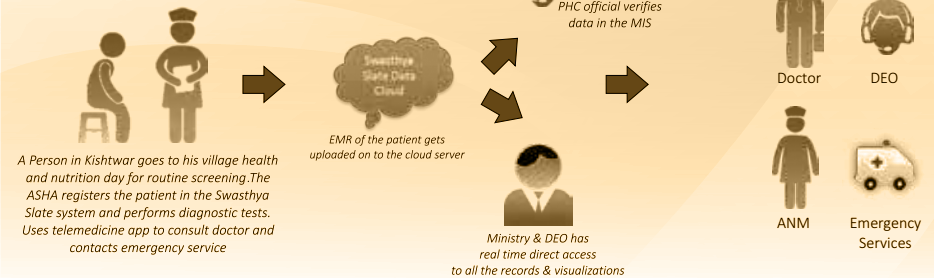
## Swasthya Slate - a few use cases



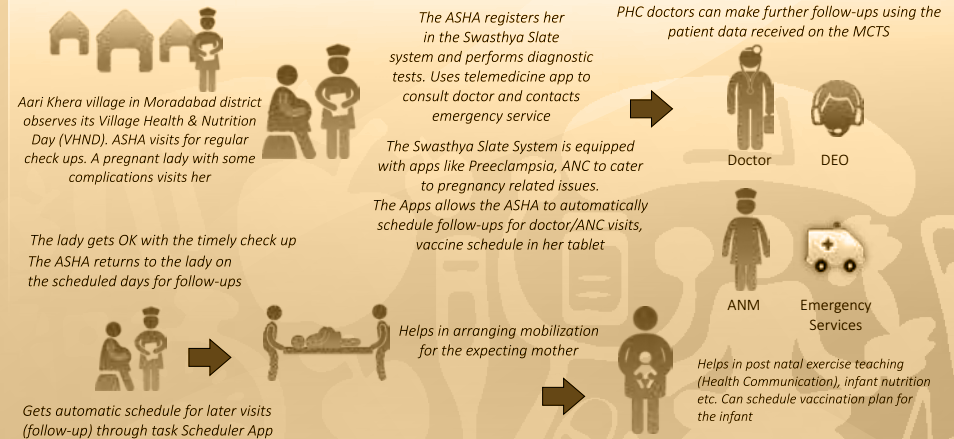
PUBLIC  
HEALTH  
FOUNDATION  
OF INDIA

### SCREENING OF PATIENTS

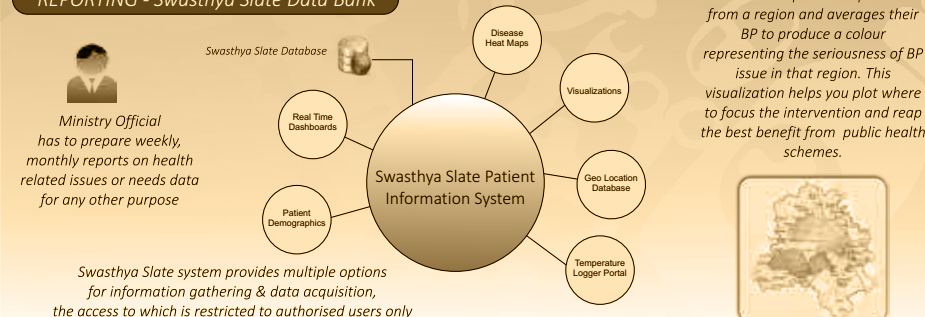
Swasthya Slate offers an easy way to screen people and record their location through GPS. It allows this type of screening anywhere anytime and augments the health system by increasing its reach. The 33 diagnostic tests included will revolutionize availability of services in PHCs, CHCs and District hospitals and remote access allows easy referrals



### MOTHER & CHILD CARE – Diagnosis, referral & follow ups



### REPORTING - Swasthya Slate Data Bank



Uses of Swasthya Slate in primary health care setting

# NEWS

## The Washington Post

27° Washington, DC November 19, 2014 Edition: U.S. | Regional Make us your homepage

<http://www.washingtonpost.com/blogs/innovations/wp/2014/11/18/this-indian-start-up-could-disrupt-health-care-with-its-powerful-and-affordable-diagnostic-machine/>

### Innovations

## This Indian start-up could disrupt health care with its powerful and affordable diagnostic machine

By Vivek Wadhwa November 18 at 10:16 AM



The Swasthya Slate is portable, affordable

Frustrated at the lack of interest in the costs of diagnostic testing, and necessary research grants, Kanav in 2011. He was a member of Arizona biomedical informatics. Kahol had between most medical devices in the

dna

<http://www.iamin.in/en/mumbai-south>

Dr Kanav Kahol's one stop solution for 33 tests  
Swasthya Slate developed by Dr Kanav Kahol of the Public Health Foundation of India (PHFI) is able to carry out 33 different tests and give instant results.

Wednesday, 25 November 2015 - 12:41pm IST | [Disha Shetty](#) | Edited by: [Sreen Sen](#) (Comments 17)



Dr Kanav Kahol believes India is the greatest place to be an engineer.

"A lot of products coming out of IITs are waste because there are involved. There is a policy framework in place." Picture this - you are unwell and your doctor orders you to get a battery. You spend the next few days going to different labs and then few more. You again you are back to the doctor for a diagnosis. No the results. Once again you are back to the doctor for a diagnosis. No that lets you do around 33 different kind of tests at one go, ranging from test to ECG and gives you the result instantly?

# small world



## Made in India... Incredibly Cheap

HEALTH APP How a Rs 9 crore medical gadget project got executed for a mere Rs 5.5 lakh here

NEW DELHI When he first thought of a portable medical device, Dr Kahol of the Affordable Health Technologies team, Dr Kahol ECG leads, heart sensors and even a water quality meter. It

plying for internships at PHFI.

While he is yet to add the blood pressure and blood sugar test functions to the device, Kahol is looking at pricing it between Rs 4,000 and Rs 7,000. PHFI plans to launch it first in J&K by giving it to rural health workers in the field of maternal and child health care. "Nearly 50-70 per cent of our workers spend their time documenting data. What is the incentive to work? The tablet enables instant digitisation and also allows them to take decisions on the spot on an instant diagnosis," he says. ■

AANCHAL BANSAL

## Forbes INDIA

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<http://forbesindia.com/article/work-in-progress/swasthya-slate-scripting-new-age-diagnostics/37556/1>

## Swasthya Slate: Scripting New-Age Diagnostics

by Udit Misra | Apr 16, 2014

Swasthya Slate, a portable device, conducts tests and displays results for cheap within seconds

Published: January 11, 2013 01:38 IST | <http://www.thehindu.com/news/cities/Hyderabad/10hymsg04swasthya-slate/article4295486.ece>

## Wonder kit of healthcare

'Swasthya' Slate project is launched by PHFI and Government

M. Sai Gopal



Dr. K. Srinath Reddy, Founder and president PHFI

**S**wasthya Slate was developed primarily for rural health care. But later, we realised urban health care too was ignored for a long time. It is an effort to build affordable technologies to diagnose basic ailments. This is not to replace the doctor but to enable the frontline worker provide initial referral and urgent information of the health condition.

### Swasthya slate workflow Within 10 to 15 mins

1. First step is patient registration including collecting demographic information and picture. It is immediately uploaded to a remote server.
2. Diagnostic equipment to record sugar, BP, ECG etc are connected to the patient at one end and to the Swasthya Slate at the other. The readings are transmitted from the diagnostic tools to the Tablet via Bluetooth.
3. The data is uploaded to a remote server and the patients are given a printout of the test results in addition to password and username to access the results remotely.

### How does Swasthya Slate work?

The rugged testing machine, the sphygmomanometer to read blood pressure levels, the disposable electrodes to record ECG and electrodes to test water quality are all tethered to the white Swasthya Slate box. The box is a link between the testing equipments and the Tablet. It sends all the collected test data to the Tablet via Bluetooth.

"After receiving the data it is transmitted to a remote server. Patients and doctors are given usernames and passwords to access the data at 'swasthyaslate.org'. They are also given a print-out of the tests on the spot," explained Kush and Sushain, the young developers who wrote the software code.

It is not often that one comes across an innovative technological device that has bridged the gap between doctors and patients. The recently launched 'Swasthya' Slate project by Public Health Foundation of India (PHFI) and the Government of Andhra Pradesh is a good example of this.

The diagnostic kit has enough promise to change the way basic diagnostic tests are conducted in the health centres in the State. At just Rs.85, the kit, which consists of a small box dubbed as Swasthya Slate and other diagnostic tools for sugar, blood pressure, heart rate, haemoglobin

## नई स्वास्थ्य तकनीक लाएगी क्रांति



डॉ. क. श्रीनाथ रेड्डी, पब्लिक हेल्थ फाउंडेशन ऑफ इंडिया के अध्यक्ष

आजकल के दौर में ही स्वास्थ्य देखभाल पर ध्यान देना जरूरी है। नई तकनीक लाएगी क्रांति। नई तकनीक लाएगी क्रांति। नई तकनीक लाएगी क्रांति।



स्वास्थ्य देखभाल पर ध्यान देना जरूरी है। नई तकनीक लाएगी क्रांति। नई तकनीक लाएगी क्रांति। नई तकनीक लाएगी क्रांति।

एक डिवाइस पब्लिक हेल्थ फाउंडेशन ऑफ इंडिया ने तैयार की है। इस डिवाइस का नाम 'स्वास्थ्य स्लेट' है। मातृत्व और शिशु स्वास्थ्य सेवाओं के स्तर को सुधारने के लिए विशेष रूप से जन्म-कश्मीर समेत कई राज्यों में उपयोग किया जा रहा है।

इस तरह की एक डिवाइस पब्लिक हेल्थ फाउंडेशन ऑफ इंडिया ने तैयार की है। इस डिवाइस का नाम 'स्वास्थ्य स्लेट' है। मातृत्व और शिशु स्वास्थ्य सेवाओं के स्तर को सुधारने के लिए विशेष रूप से जन्म-कश्मीर समेत कई राज्यों में उपयोग किया जा रहा है।



SHRUTI SETIA CHHABRA Chandigarh | 29th Jun 2013

## The Sunday Guardian

<http://www.sunday-guardian.com/news/health-tablet-expected-to-revolutionise-diagnostics>

### Health tablet expected to revolutionise diagnostics

Dr. K. Srinath Reddy's lifelong passion for developing affordable health care solutions led him to Swasthya Slate, which enables paramedics and healthcare workers to conduct tests for sugar, blood pressure, ECG etc using a mobile device.

Dr. K. Srinath Reddy's lifelong passion for developing affordable health care solutions led him to Swasthya Slate, which enables paramedics and healthcare workers to conduct tests for sugar, blood pressure, ECG etc using a mobile device.



Project on awareness to action through multi-channel advocacy for effective tobacco control in India: capacity building in five Indian states by the Indian Institute of Public Health, Bhubaneswar (IIPH-B). *Photo Credit: IIPH Bhubaneswar*

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AMPLIFYING  
ADVOCACY &  
ACCELERATING ACTION

# TAKING THE SUSTAINABLE DEVELOPMENT AGENDA FORWARD

*P*rof. K. Srinath Reddy is the Co-Chair of thematic group 5 on “Health for All” and PHFI is a member institution of the **United Nations Sustainable Development Solutions Network (UN-SDSN)**. Over the last two years, PHFI’s engagement with the SDSN has resulted in a document titled “Health in the Framework of Sustainable Development”, developed in collaboration with experts from around the world. The document outlined the centrality of health in the framework for sustainable development, and details goals and targets related to health for the consideration of the UNs Open Working Group on the Sustainable Development Goals. The submissions of the thematic group have been considered in the final SDG declaration that provides a comprehensive agenda to achieve health for all by 2030.

PHFI also launched a free **Massive Open Online Course (MOOC)** on Global Public Health in March 2015 in partnership with the SDSN. The course ran for 10 weeks, covering a range of subjects in public health including the history and origins, infectious and chronic diseases, health systems & financing, all while emphasizing the centrality of health in the development discourse, and the importance of integrating health across sectors. The course was led by Prof. K. Srinath Reddy, with global experts such as Dr. Richard Cash (Harvard School of Public Health), Prof. Vinod Paul (All India Institute of Medical Sciences), and Mr. Rob Yates (Chatham House) contributing as faculty members. The MOOC was very well received, with over 3000 students signing up, and around 1000 completing the course, which represents a very high retention rate for online courses. The next



edition of the course is set to run in early 2016. The Pan – American Health Organisation of WHO has now requested for the translation and adaptation of this course for Central and Latin America.

PHFI is now working on the development of an India relevant indicator framework for the implementation of the SDG targets related to health. This project is supported by a grant from the Rockefeller Foundation.

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**PHFI is leading the initiative to develop an indicator framework for India to realise Sustainable Development Goals (SDGs).**

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# NEWS

ht@90 | DR AGENDRA  
COLLECTOR'S EDITION  
FOR CHANGING  
THE MAKING OF A NEW INDIA

hindustantimes

Tuesday, October 07, 2014

K Srinath Reddy

## India's basic services very weak, it's time we promote health equity

Political will is even more important than professional skill for addressing India's health in the decade. There should be political will to elevate health to the top tier of the national development agenda. Economy, equity and electability together will constitute the will. Recognition that it is necessary to invest in health for accelerating economic growth has finally become an axiom of development. It is now influencing our national development agenda.

The imperative of promoting health equity, to bridge huge gaps in major health indicators across different social, geographic and gender groups, is a call to conscience that politicians recognise and respond to, whether on their own or through pressure exerted by civil society. Health is also becoming an important electoral issue, with provision of essential health services generating popularity and electoral gains. The recent election of Joko Widodo as President of Indonesia is mostly attributed to the popularity of the universal health coverage (UHC) he introduced as Governor of Jakarta. In India, we are seeing the stirrings of a similar response to health policies that people.

Even as health begins to take its rightful place in the framework of national development, we critically identify the fault lines in our previous policies and reassign priorities for resource to health programmes. Now is the time to do so, since the government has announced its intention to develop a new health policy. The Prime Minister's Independence Day address did not include initiatives on health (other than sanitation), despite his known commitment to increased investment in health. This suggests that careful thought is being given to setting down priorities before new initiatives in health. This is the right time, therefore, to debate key issues of our health.

Let us first look at the health pyramid, the mismatch of needs and gains, and the state of development at different levels of the structure since Independence. At the very base are the social and environmental determinants of health such as water, sanitation, nutrition and clean environment. Policies in other sectors influence these determinants which constitute the foundation of public health in any society.

Then come the layers of promotive, preventive and basic clinical services provided by well-designed health care. Higher up the pyramid, but with smaller contributions (provided in district hospitals) and tertiary

THE FINANCIAL EXPRESS  
Read to Lead

## Health and sustainable development

Krishna d Rao Posted online: Monday, Feb 25, 2013 at 0000 hrs

*Increase of government spending on health from around 1% to under 2% of GDP in the 12th Five Year Plan can create an affordable health system by pursuing two independent strategies to achieve universal health care —strengthening the public health system, and building a government sponsored health insurance system*

The 12th Five Year Plan and its promise of increased government spending on health from around 1% to under 2% of GDP is seen by many that the government might at last be serious about the nation's health. Yet, as recent debates on the Health Plan indicate, it is not clear where these additional funds should be invested. Indeed, the government appears to be pursuing two independent strategies to achieve universal health care—strengthening the public health system, and building a government sponsored health insurance system. Given the levels of government spending of health, both strategies cannot be adequately funded. Nor do these two paths necessarily complement each other. There is a pressing need for a national strategy that harmonises these competing paths and enables the efficient use of our country's scarce health resources.

The idea of universal health care is not new in India. The Bhore Committee report (1946) inspired the creation of a vast network of government funded and staffed clinics and hospitals through which all Indians could have access to affordable health services. That this system failed to deliver on its promise is well known—it was underfunded, under supplied and under staffed.

In the past decade, there has been a renewed effort to rejuvenate the public sector health system, particularly at the primary care level. This effort was signaled by the launch of the National Rural Health Mission (NRHM) in 2005, which till date, has invested around R43,700 crore in strengthening the public system. With the eminent launch of the National Urban Health Mission, substantially more government funding can be expected to flow into health. More recently, the High Level Expert Group (HLEG) commissioned by the Planning Commission recommended that the government spend upto 3% of GDP on strengthening the public sector health system.

## Health and development

Health has many determinants that lie outside the conventional biomedical paradigm  
**K. Srinath Reddy**



Studies show that half of childhood under-nutrition in India can be ascribed to poor sanitation. Photo: Priyanka Parashar/Mint

What is the trickle-down effect of bilateral relations between countries on public health in India? Will livestock farming in high-income countries affect global health and environment? How will the growth of cities impact the health of populations?

These questions may be far-fetched for many who think of health only as a product of interactions between individual beliefs, behaviours and biology, and view medical care as the only pathway for improving health. However, health has many determinants that lie outside the conventional biomedical paradigm and are influenced by non-individual interventions that have a profound population-wide impact.

These interconnections have been long recognized by the public health community, but are being acknowledged only recently. They are at the forefront of ongoing discussions on the post-2015 United Nations' sustainable development goals. While individual sectors are charting goals of their own, they are also being pressed to describe how those goals will impact other development sectors so that an integrated framework for sustainable development can emerge in 2015.

It is no secret that poverty is both a cause and consequence of ill-health, especially when the poor in India are known to have among the worst health indicators globally. Healthcare costs push 60 million Indians below the poverty line each year. It requires no imagination to recognize that water and sanitation have a great impact on health. Studies show that half of childhood under-nutrition in India can be ascribed to poor sanitation.



## PRIORITISING HEALTH NEEDS

SPECIAL ARTICLE

## Health In The Era of Sustainable Development

K Srinath Reddy



*Whether it is continued commitment to the MDG agenda, initiation of effective action on new elements like non-communicable diseases and mental health or earnestly implementing a well planned programme of universal health coverage, India's health priorities resonate well with the SDG targets. We need to gear up the performance of our health system to reach those targets. Equally important, we need to work towards greater policy coherence in harmonising actions across the different development sectors, so that they enable and not erode each other. Only then can we create a healthy future for ourselves*

Is health a predictable beneficiary of a country's economic development? Is health of the people a valuable investment for economic growth? How is health related to other areas of development which often seem unconnected and even compete for resources? What are the health priorities that feature in the global development agenda that are relevant to India?

While these questions have been discussed for several decades, greater clarity has emerged in recent years. The prominence of health in the Millennium Development Goals (MDGs: 2000-2015) and in the Sustainable Development Goals (SDGs: 2016-2030), sequentially adopted by the United Nations, arises from the recognition that health is pivotal to equitable and sustainable development and is closely interconnected to other development sectors.

Health status of a population does improve with the country's economic development. As the frequently cited Preston curve shows, life expectancy rises sharply as the average per capita income rises from low levels over time in any country. This benefit tends to plateau at high of per capita income with only small incremental gains of

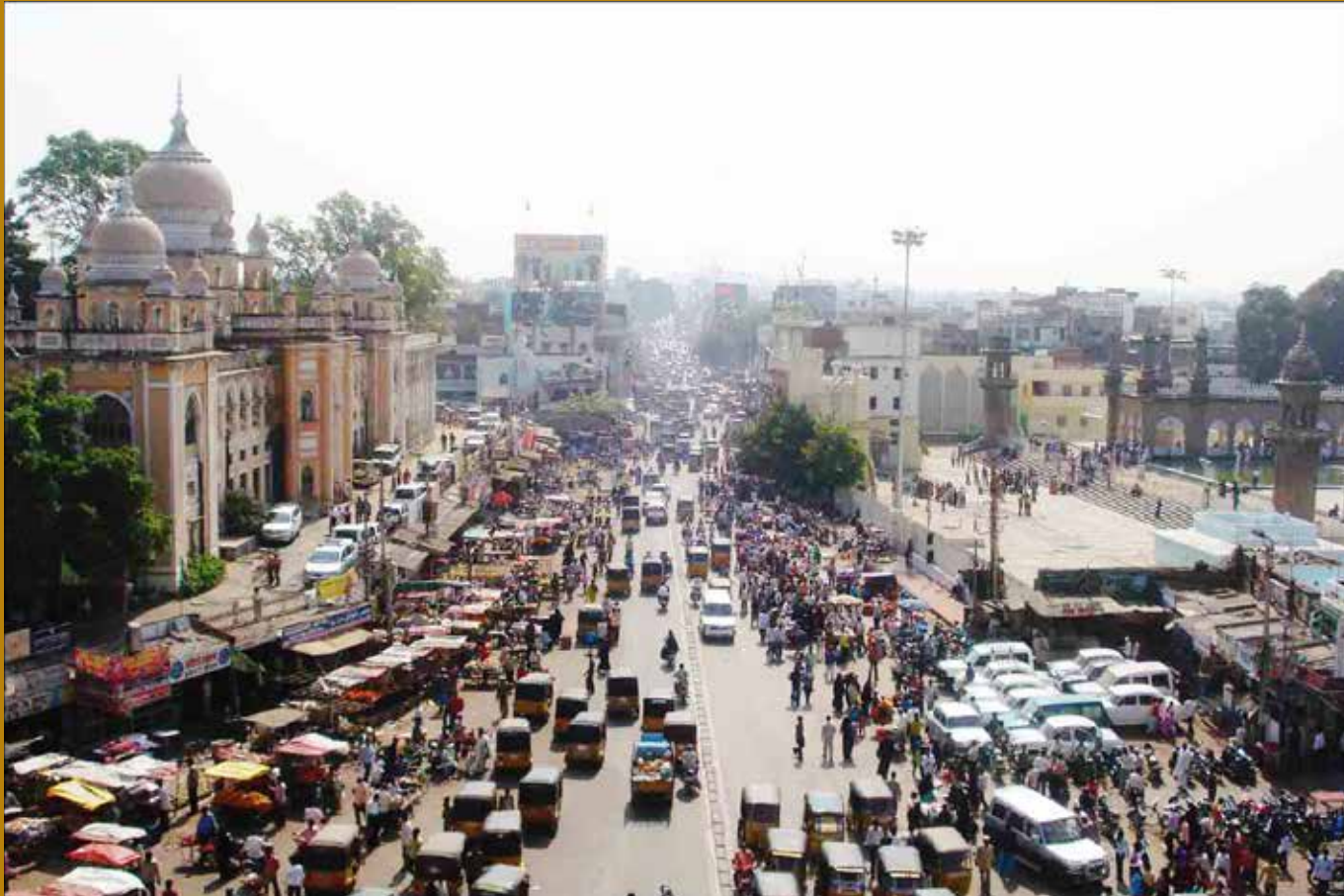
life expectancy, with a further rise in income. However, Kate Pickett and Wilkinson showed that, at similar levels of per capita income, countries with lower levels of income gaps within the population (greater equality) have better life expectancy and other health indicators than countries with higher income gaps within the population (lower equality). In their book *The Spirit Level*, they provide evidence of how even the rich in countries with less equality fare worse than their counterparts in countries with greater equality.

While conventional economic wisdom through a great part of 20th century tended to view health and improved nutrition as passive beneficiaries of economic growth, the latter part of that century recognised population health and nutrition as levers of accelerated economic growth. In his 1993 Nobel Prize lecture, economist Robert Fogel explained how 50 per cent of Britain's economic growth during 1790-1980 was attributable to improved nutrition, which reflected the social policies adopted during 1790-1930. *The World Development Report of 1993*, titled *Investing in Health*, made a strong case for greater economic investment in health to reap the benefits of greater economic growth.

The author is President, Public Health Foundation of India (PHFI). He edited the National Medical Journal of India for 10 years and is on editorial board of several international and national journals. He has more than 400 scientific publications in international and Indian peer reviewed journals. His contributions to public health have been recognized through several awards and honours like WHO Director General's Award for Outstanding Global Leadership in Tobacco Control (World Health Assembly, 2003), Padma Bhushan, 2005, Queen Elizabeth Medal (Royal Society for Health Promotion, UK, 2005).



# BOTH RURAL AND URBAN DEVELOPMENT NEED TO BE SUSTAINABLE AND HEALTH FRIENDLY



Both rural and urban development need to be sustainable and health friendly. *Photo Credit: Satyanarayana / IIPH - H*

# ENVIRONMENTAL HEALTH INITIATIVES AT PHFI

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Professor K. Srinath Reddy  
was named co-chair of the  
Steering Committee on  
Air Pollution established by  
the Ministry of Health and  
Family Welfare

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A major engagement of PHFI, in broadening awareness of the importance of health in policy formulation across sectors, came through the work of the **Steering Committee on Air Pollution established by the Ministry of Health and Family Welfare** in early 2014. Professor K. Srinath Reddy was named co-chair of this committee along with Professor Ambuj. D. Sagar of IIT-Delhi, with PHFI named as secretariat to the committee. The committee comprised experts from health, economics, energy, environment and development, and tasked with compiling the evidence on exposures and health impacts in India, and to chart out a roadmap to reduce the burden of air pollution on health in India, through multi-sectoral actions. In its role as secretariat, PHFI played a key role along with committee members and advisors in compiling the best evidence obtained nationally, supplemented by global evidence where needed, and charting out actions for each relevant ministry. The key innovation of the report

was highlighting the fact that interventions need to be focused on where the exposure is, rather than just where the emissions are, thereby tackling the key sources affecting health, rather than just air quality. The report also outlined actions to address long-term and episodic exposures in a holistic manner.

PHFI, along with Harvard School of Public Health (HSPH), was recently awarded a collaborative grant to establish the Air Pollution and Health **GEOHealth** Hub Research and Capacity Building Program. The goal is to accelerate scientific infrastructure development, enhance research training, and support research needed to fully characterize the relationship between air pollution and health outcomes in India. By training Indian scientists on how to assess indoor and outdoor air pollution and occupational exposures, conduct complex epidemiological studies of air pollution, epigenetic and mediation analysis, the proposed hub will enhance capacity to conduct research that will help inform policies to effectively mitigate the impact of air pollution on susceptible populations.

In January 2016, PHFI received a grant from Tata Sons to establish a **Centre of Excellence in Environment and Health**. Apart from undertaking policy relevant research



*Photo Credit - tomwang / 123RF Stock Photo*

on the health effects of various environmental hazards, the centre will also enable PHFI to partner with the Tata Institute of Social Sciences to strengthen academic programmes in this field.

# NEWS & PUBLICATIONS

## Business Standard

### Indians losing over years of their life due to high pollution levels: study

Michael Greenstone of MIT says almost 6.28 mn population in 281 districts exposed to health risks due to poor adherence to pollution standards

Sanjeeb Mukherjee | New Delhi  
April 2, 2014 Last Updated at 11:36 IST

India's over 121 billion strong population stands to gain almost 3.3 years of life if the country adhere to the air quality standards laid down by the government, a well-known Environment Economist Professor [Michael Greenstone](#), of the Massachusetts Institute of Technology showed.

Greenstone, who presented his study at the recently held annual meeting of the Foundation of India (PHFI), said that almost 6.28 million population in 281 districts exposed to health risks due to poor adherence to pollution standards.

Greenstone, who also served as the Chief Economist for President Obama's Council of Economic Advisors in the first year of his Administration and was editor of The Review of Economics and Statistics, said India should allow civil penalties for pollution related cases and subsidies to decrease transport emissions. It could consider imposing a congestion charge and parking prices for cities like Delhi, which have a big huge vehicle population.

As per the Environmental Performance Index study, India officially has the 170th rank in the world, beating China, Pakistan, Nepal and Bangladesh, and ranks last of all 170 plus countries surveyed.

Experts say that sustained exposure to fine [Particulate Matter](#) (PM) on a sustained basis can cause a range of upper and lower respiratory ailments, including chronic bronchitis, emphysema, obstructive pulmonary disorder, and acute lower respiratory infections. In India, it is estimated to contribute to over 100,000 premature deaths annually, the study said.

## THE TIMES OF INDIA

### 'Pollution check can save 2bn life years'

Jayashree Nandi TNN

New Delhi: India can save up to 2 billion life years if the places that exceed the national air quality standards (very polluted) were brought within standards, US-based economist, Michael Greenstone has estimated.

Greenstone, who is 3M professor of Environmental Economics at Massachusetts Institute of Technology (MIT), said in around 281 districts, 628 million people live in highly-polluted areas that don't meet the air quality standard.

He was delivering a lecture on 'Shorter Lives Due to Air Pollution' at the Public Health Foundation of India (PHFI) foundation day celebrations on Friday. Greenstone's estimates are based on data from the Central Pollution Control Board (CPCB) and other studies which show that 52% of India's population is living in areas that are monitored by CPCB, where PM 2.5 (very fine respirable particles) level is higher than the safe standard. Over 80% of the population is living in areas where PM 10 (coarse particles) levels are higher than the safe standard.

Greenstone had conducted a similar "quasi-experimental" study on air pollution in China which assessed the life expectancy of a population north of Huai river where a lot of coal power plants were located due to a home heating policy and compared it with south of Huai river where no such policy existed. Life expectancy of those in north were found to be far lesser. A similar model of experiment is used in case of India.

Greenstone found that each person living in these areas may gain 3.3 years of life in India. "India is very highly polluted and needs to make policy to deal with it. WHO has recently released data that 1 in 8 deaths were due to air pollution in 2012. The majority of the impact is borne by South East Asia," said Greenstone who was also the chief economist in President Obama's Council of Economic Advisors.

## End unsustainable fuel subsidy to reduce air pollution: PHFI

Report says diesel exhaust is a major contributor to transport emissions, especially of particulate matter

Neha Sethi



Some of the other actions that the paper recommends for reducing ambient air pollution include expanding real-time monitoring of ambient air quality in the country in urban areas to study the impact. Photo: Hindustan Times

**New Delhi:** Public Health Foundation of India (PHFI) has said that ending unsustainable subsidies is one of the major actions required to reduce ambient air pollution.

PHFI released a paper on Friday which said that diesel exhaust is a major contributor to transport emissions, especially of particulate matter. "With 49% of all new cars running on diesel (the cost of which is subsidised by the government) this poses a major challenge that needs to be tackled," it said.



UNEP

United Nations Environment Programme  
environment for development

# OurPlanet

<http://web.unep.org/ourplanet/september-2015/articles/tackling-hidden-assassin>

## Tackling the Hidden Assassin



with

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



**Bhargav Krishna, Research Fellow and Executive Aide to the President, PHFI**

Environmental pollution has now become the single largest risk factor for death and disability in the developing world. It is especially true in India, where the ubiquity of sources and the manifold pathways to exposure ensure the impact of pollution is felt by all. The rapid economic growth of the last 25 years has left the country with a growing cloud of pollution, be it exposure from industrial cooking or vehicular exhaust, overuse of pesticides, heavy metals released from power plants and factories contaminating food water supplies, or chemical wastes discharged into vital river systems. Exposure to a range of toxic chemicals has been a long-standing issue in India, and continues to grow as a risk factor for ill health. The shadow of inadequacy in chemical management goes all the way back to the Bhopal Gas tragedy—one of the worst industrial disasters in history, resulting in thousands of deaths—and continues today, with several dozen critically polluted industrial clusters in the country. The issue recently came to the forefront with the proliferation of mercury pollution in southern India as a result of inadequate remediation by a multinational consumer goods company at a former production facility. And the clean-up of legacy sites continues to be a major problem, with one study estimating there to be hundreds of such toxically polluted sites in India. Toxic chemicals in food chains were recently highlighted by publicity over high levels of lead in popular processed foods. The Standards Authority do not conform to national standards. Recycling used lead acid batteries is never really discussed. Nor was food safety. Recyclers rarely have adequate safety protocols, resulting in over half of it occurring in informal settings. The health impacts of exposure to toxic chemicals, exposing workers, and

# KNOWLEDGE SHARING AND CROSS LEARNING EVENTS ORGANISED BY PHFI



CLOCKWISE FROM TOP LEFT

Dr Prabhakaran and Dr Sandeep Bhalla sign MoU with the, Hon'ble Mayor of Kolkata, Shri Sovan Chattopadhyay, Kolkata Municipal Corporation for adoption of CCEBDM course

Honourable Sh. Tarun Gogoi, Hon. Chief Minister of Assam, Dr K Srinath Reddy, President, PHFI, Prof Kulendu Pathak, Former Vice Chancellor, Dibrugarh University at the Convocation of CCEBDM



Consultation meeting on EcoHealth / One Health in South Asia organised by PHFI



Alcohol Taxation Consultation organised by PHFI



Dr Rajesh Bhatia, Dr V C Ohri, Dr R Laxminarayan, Prof Ganguly, Dr Dilip Mathai and Dr Chand Wattal at the Launch event and Panel Discussion, State of the World 's Antibiotics, 2015



Former Health Minister Dr Harsh Vardhan releases the report on the “Economic Burden of Tobacco Related Diseases in India” on World No Tobacco Day



Symposium organised by PHFI on Universal Health Coverage



Dr Montek Singh Ahluwalia speaking at the symposium on Universal Health Coverage organised by PHFI and HEAI



Professor Jeremy Farrar, Director, Wellcome Trust addressing researchers and faculty at the PHFI office



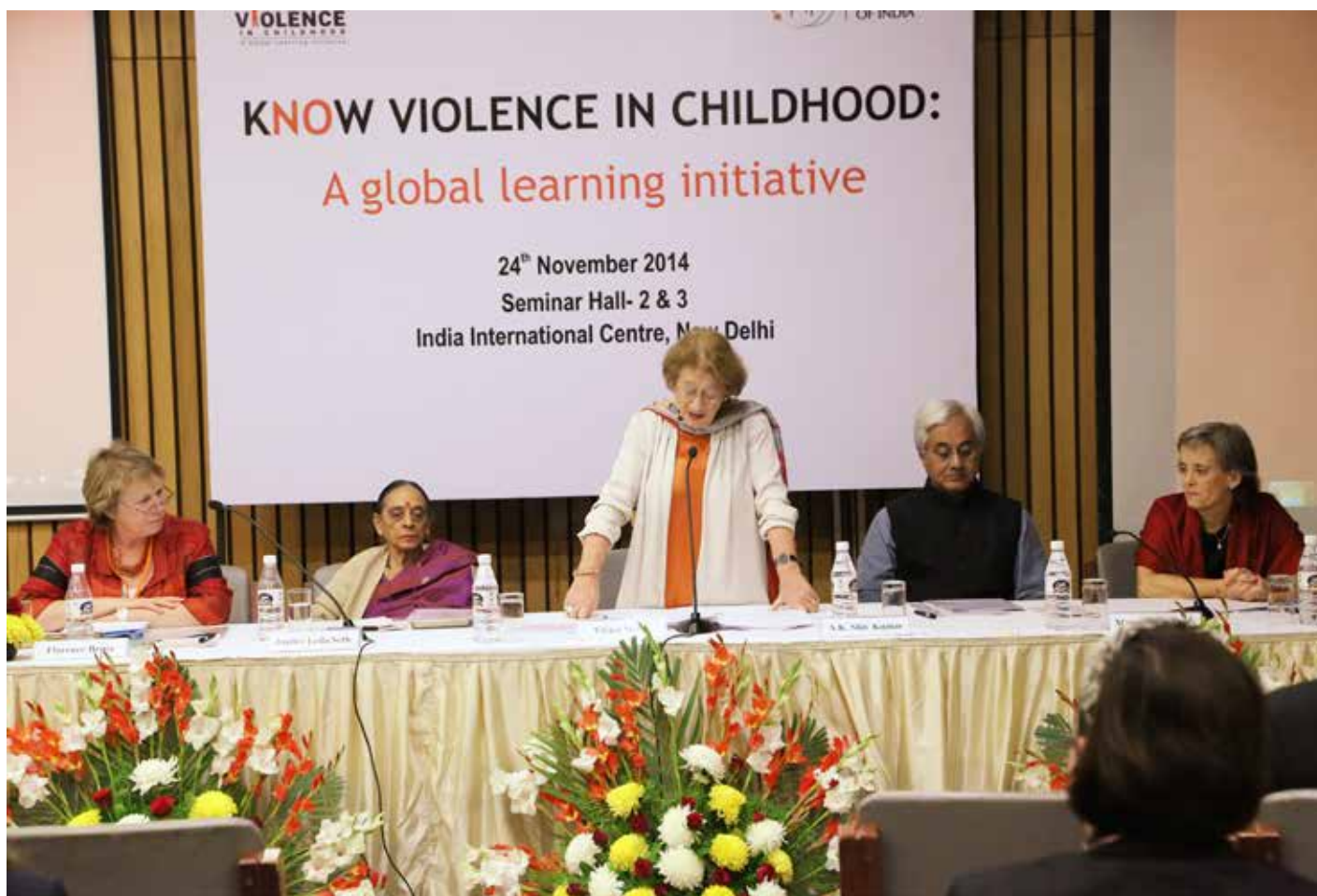
CLOCKWISE FROM TOP LEFT

Dr. Robert Black, Professor of International Health at the Johns Hopkins Bloomberg School of Public Health and lead author of the Lancet Series at the *Lancet Series on Maternal and Child Nutrition 2013*

National Board of Examinations (NBE) and PHFI, *release of the Report of Health Professional Education for a New Century* by Sh. CK Mishra Additional Secretary, Ministry of Health and Family Welfare, Dr K Srinath Reddy, President PHFI and Prof. M.C. Misra, Director AIIMS



PHFI and partners launched a comprehensive diabetes prevention and management programme UDAY



Launch event of KNOW VIOLENCE

Know Violence in Childhood: A Global Learning Initiative is a new global initiative of leading independent experts created to generate evidence and advance action on preventing violence. The technical secretariat is located at PHFI



IIPH - Gandhinagar participated in Vibrant Gujarat 2015

# PHFI FOUNDATION DAY

*P*HFI celebrates Foundation Day each year, with a lecture which focuses on a public health area of national and global importance, delivered by a distinguished leader.

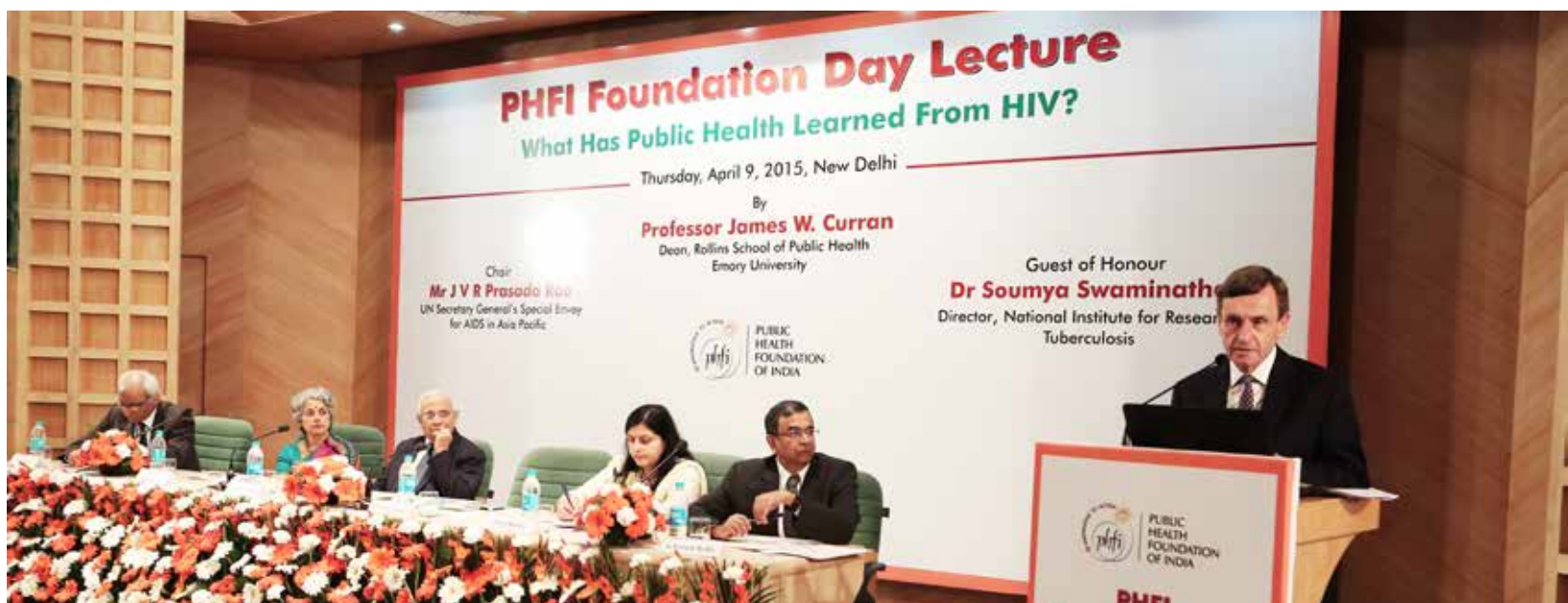
- **2015: Professor James. W. Curran**, Dean of the Rollins School of Public Health at Emory University: 'What has Public Health learned from HIV?'
- **2014: Professor Michael Greenstone**, 3M Professor of Environmental Economics at the Massachusetts Institute of Technology: Shorter Lives Due to Air Pollution and Some Potential Solutions for India,
- **2013: Professor Dulitha Nandanie Fernando**, Emeritus Professor, Community Medicine, Faculty of Medicine, University of Colombo: Orienting Health Systems to Women's Health
- **2012: Dr Julio Frenk**, Dean of the Faculty and T & G Angelopoulos Professor of Public Health and International

Development at the Harvard School of Public Health: Transforming Health Professional Education for the 21st Century

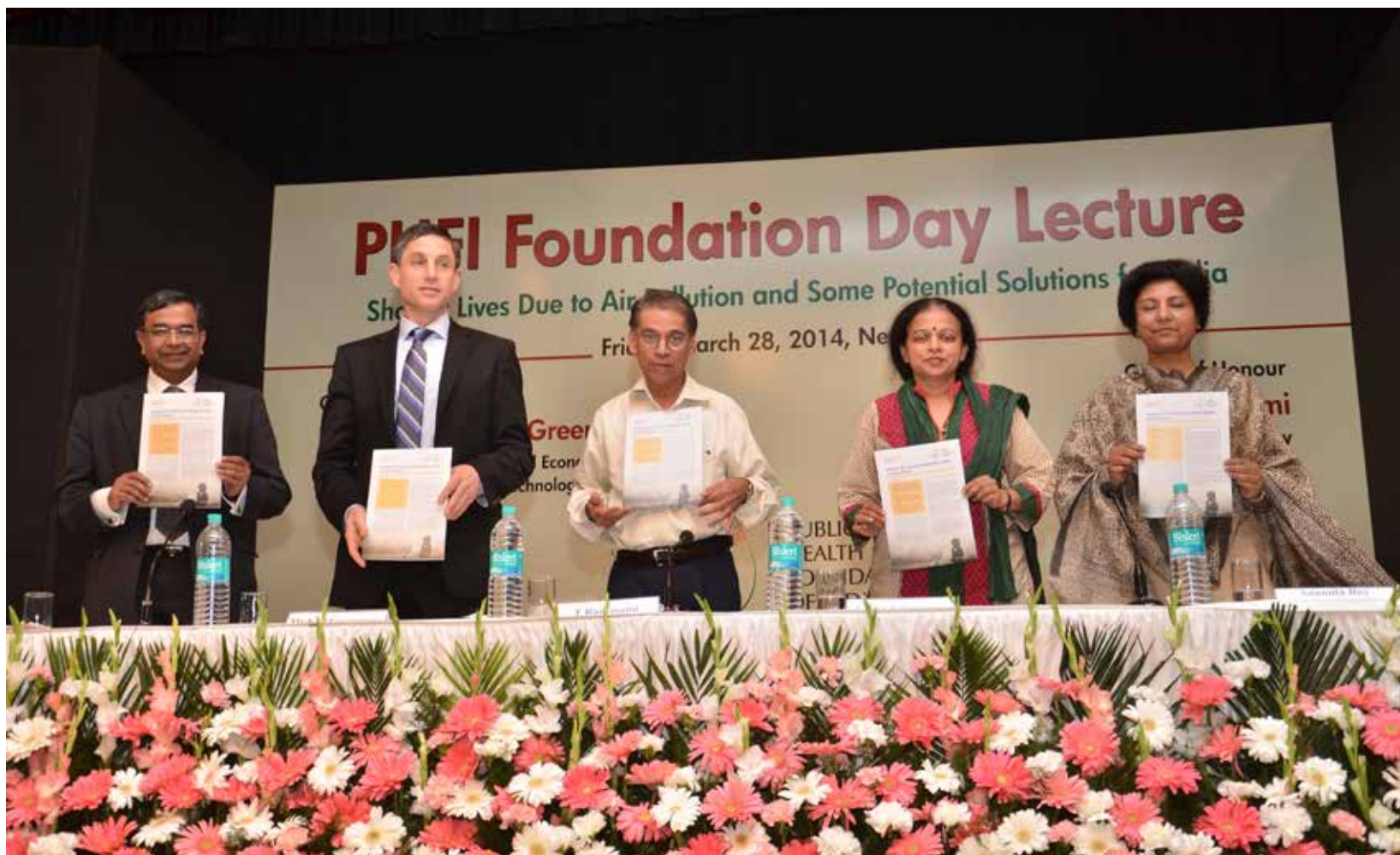
- **2011: Professor Peter Piot**, Director, London School of Hygiene and Tropical Medicine: Global Health in the 21st Century: From Concerns to Concerted Action
- **2010: Dr Tim Evans**, Assistant Director General, World Health Organisation: Improving the public health workforce: a change in 'per diem' or 'paradigm'?
- **2009: Prof. Sir Andrew Haines**, Director, London School of Hygiene & Tropical Medicine: Revitalising Primary Health Care: From Evidence to Action
- **2008: Prof. Anthony J. McMichael**, NHMRC Australia Fellow at the National Centre for Epidemiology and Population Health, The Australian National University, Canberra: Environment, Climate and Health, An Expanded Public Health Research and Policy Agenda for the 21st Century



Professor Julio Frenk delivers the Foundation Day Lecture on *Transforming Health Professional Education for the 21st Century*



Professor James. W. Curran, Dean of the Rollins School of Public Health, speaking on '*What Public Health has learned from HIV*'?



PHFI releases a call for action policy brief on ambient air pollution and public health which preceded a panel discussion where apart from Prof Greenstone, Dr Leena Srivastava, Executive Director TERI and Ms Anumita Roy Chowdhury, Executive Director, Research and Advocacy, Centre for Science and Environment were panellists, moderated by Dr T Ramasami, Secretary, Department of Science and Technology, Government of India

# OTHER DISTINGUISHED INTERNATIONAL SPEAKERS WHO HAVE DELIVERED PUBLIC LECTURES ORGANISED BY PHFI



Ms. Mary Robinson  
Former President of  
Ireland and Director  
General of UN Human  
Rights Commission



Prof. (Sir) Michael Marmot  
Chair of the WHO  
Commission on Social  
Determinants of Health



Prof. Jeffrey Sachs  
Chair of the Sustainable  
Development Solutions  
Network



Prof. Christopher Murray  
Director of the Institute  
of Health Metrics and  
Evaluation, University of  
Washington



*Photo Credit - rawpixel/123RF Stock Photo*

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PARTNERSHIPS  
FOR A  
PUBLIC PURPOSE

# PARTNERSHIPS FOR A PUBLIC PURPOSE

*P*HFI is a unique, not-for-profit public private partnership. PHFI represents a true 'Partnership for Public Purpose' that is working collaboratively with range of stakeholders including the national and state governments, national and international academia, civil society, global foundations, individual leaders, and the private sector. It functions as an independent foundation and is registered as a Society in India.

The creation of PHFI in 2006 was enabled by the Government of India, and was supported by multiple stakeholders. Initial funding came from Ministry of Health & Family Welfare (MoHFW), the Bill & Melinda

Gates Foundation and private philanthropy. Amongst the other core supporters of PHFI are Nand & Jeet Khemka Foundation, Infosys Foundation and HCL Corporation

PHFI adopts an integrative approach to public health that emphasises preventive and promotive dimensions of health and strengthening of health systems for delivering wide range of services

It is governed by an empowered and international Board with representation of eminent personalities. The Secretary, MoHFW is on the Board (Executive Committee) of PHFI and State Governments are on the Regional/ Advisory Councils of IIPHs



## GOVERNMENT

- Ministry of Health and Family Welfare
- Other Ministries of Government of India
- Various State Governments
- Government Health Agencies & Services

## CIVIL SOCIETY ORGANISATIONS

- Health NGOs
- Other development NGOs

## INDUSTRY LEADERS

- Indian Industry Heads
- Global Corporation Leaders
- Global Health Leaders

## ACADEMIA

- National Experts in Public Health
- International Public Health Schools
- Global Health Leaders

# OUR GRATEFUL THANKS TO OUR INSTITUTIONAL FUNDERS AND SUPPORTERS

Supporters, including founding members, providing institutional funding towards organisational priorities (such as development of IIPHs, Centers, Scholarships, Initiatives) through contribution to corpus or specified funds

## Central & State Governments

- Ministry of Health & Family Welfare, *Government of India*
- State Governments of Gujarat | Delhi | Odisha | Telangana | Meghalaya | Karnataka  
*(State Governments as IIPH development partners under an MoU)*

## Foundations & Trusts

- Bill & Melinda Gates Foundation
- Nand & Jeet Khemka Foundation
- Wellcome Trust
- Friends of ISB Foundation
- Amar Foundation

- Infosys Foundation
- Spandana Foundation
- HT Parekh Foundation
- American India Foundation
- Deshpande Foundation
- Heart Foundation and Research Institute
- Cyient Foundation
- Deepak Foundation
- Sir Dorabji Tata Trust

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- GMR Projects Private Ltd
- GVK Power and Infrastructure Ltd
- Mr NR Narayana Murthy
- Dr Varaprasad Reddy
- Dr. Mangal Katikineni, Dr. Anil Tulpule and Dr. M K Mohan
- MMTC Limited
- McKinsey & Company
- Prof M A Vijayalakshmi
- Dr. Donald Stablein
- Mr Hari Buggana
- Binani Cement Ltd.

# OUR VALUED NATIONAL AND INTERNATIONAL PARTNERS IN PUBLIC HEALTH PROGRAMS

## ACADEMIC & RESEARCH ORGANISATIONS/ASSOCIATIONS



## GOVERNMENT & ITS DEPARTMENTS AND PROGRAMS; BILATERAL/ MULTILATERAL AGENCIES



## FOUNDATIONS & PRIVATE SECTOR ORGANISATIONS



# IN THE WORDS OF OUR PARTNERS



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July 31, 2014

The Hon'ble Prime Minister of India  
South Block, Raisina Hill,  
New Delhi-110011

**Subject:** Extension of support to grant University status to Public Health Foundation of India (PHFI) and its constituent units of Indian Institutes of Public Health (IIPH)

Esteemed Prime Minister, on behalf of the undersigned deans of schools of public health, we extend our heartiest congratulations and best wishes to the new government under your leadership. We have been keenly following the health policy announcements by your government, particularly the National Health Assurance Mission, and commend you for putting public health amongst the top priorities. In line with its place in global economy, India can be a force in global health as it improves its own health outcomes and brings up new models and innovations in health systems to increase health access and affordability.

As part of our global health partnerships, our schools have active academic and research collaborations with Indian public health institutions, including the Public Health Foundation of India (PHFI) and the Indian Institutes of Public Health (IIPHs) established by it. It is our strong belief that building a base of skilled public health professionals will be a critical enabler for designing and delivering effective health policies and programs.

We have watched with great admiration the growth of PHFI-IIPHs as a multi-disciplinary education-research-practice focused institution, having strong connections with national and international academic and research organizations. It is commendable that in a short span, PHFI has built a talent pool of 600 plus professionals including not just medical doctors but also nutritionists, economists, engineers and social scientists. Through its on-campus and distance education programs, it has trained 20,000 plus public health professionals. The research output has been impressive with 1000 plus publications in highly rated peer reviewed journals, and the knowledge base is being applied to improve health policy and programs.

Towards realizing its full potential and becoming a truly world class institution of higher learning, PHFI can benefit immensely from a formal recognition and empowerment as a National University. This would not only enable it to award Graduate degrees, PhD and other academic qualifications in the disciplinary streams of public health, but also support greater academic collaborations with other institutions and universities across the world. We urge you to lend your support for granting of University status to PHFI and its constituent IIPHs.

The letter was signed by Deans from Universities of Michigan, Harvard, Emory, Pittsburgh School of Public Health, Minnesota School of Public Health, Washington School of Public Health, Johns Hopkins, North Carolina Gillings School of Public Health and Johns Hopkins

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The Honorable Prime Minister of India,  
Prime Minister's Office  
South Block, Raisina Hill  
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20 August 2014

Esteemed Prime Minister

**Endorsement of the granting of University Status to the Public Health Foundation of India (PHFI) and its constituent units of Indian Institutes of Public Health (IIPHs)**

On behalf of the London School of Hygiene & Tropical Medicine, I would like to convey our admiration of the emphasis laid by the new government, under your able and experienced leadership, on public health as an integral component of the development agenda. Your vision, combined with the efficient and accountable governance that is expected to be the hallmark of your administration, can prove truly transformational for the health system in India. Your proposal to provide every citizen with accessible and affordable health care through a National Health Assurance Programme has the potential to deliver a substantial base of healthy and productive workforce to the country.

As part of our initiatives towards fostering strong and enduring academic linkages between India and the UK Institutions, we have been actively engaged with the Public Health Foundation of India (PHFI) and the Indian Institutes of Public Health (IIPHs) established by it. We deeply admire the strong base of on-campus and distance education programmes that has been built by PHFI in a short span of 5-6 years. The multi-disciplinary resource base and strong linkages with on-the-ground research and health system activities lends a unique character to the IIPHs as world class institutions of higher learning.

We are of the firm view that one of the critical needs with regard to the planned provision of high quality and large-scale public health education in India, is the development of appropriately skilled faculty in adequate numbers. In view of this, a consortium of 16 UK Schools of Public Health have partnered with PHFI through the Wellcome Trust Capacity Strengthening Strategic Award, for developing future leaders in public health. This programme includes opportunities for doctoral & masters studies, research fellowships, collaborative research projects, short training courses and faculty exchanges between India and the UK. The current phase of the programme leverages the skills and resources of the UK consortium to further strengthen inter- and intra-country research, education and practice links by facilitating the transition of doctoral candidates to being independent research and faculty leaders. So far, over 90 talented young health

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& TROPICAL  
MEDICINE



October 31, 2014

The Hon'ble Prime Minister of India  
South Block, Raisina Hill  
New Delhi – 110011

Esteemed Prime Minister,

We are writing, both as scientists and citizens, to congratulate you on your commitment to strengthen the base of public health in the country through universal availability of sanitation and clean drinking water. We are also happy that your vision of 'Y Assurance for All' will open pathways for universal access to affordable, high health care at all levels. At the same time, there is a great unmet need for public expertise which can assist policies and programmes through knowledge generation. This serious gap has resulted in our country's under performance in several areas of public health. Meeting the shortfall of public health professionals is a primary health care services of Janani and Kashin, under NRHM. It is also assisting several state governments in building public health management capacity among medical officers of the state health services.

The Public Health Foundation of India (PHFI) was launched in 2006, these concerns. The Foundation was established as a result of national and with the support and approval of the Ministry of Health and Family Welfare (MoHFW) and other partners which include the Bill and Melinda Gates Foundation, a public private partnership, structured as an autonomously governed Governing Council comprising senior Government officials, public scientists, civil society representatives and industry leaders. establish public health institutes of excellence, assist the growth training institutions, undertake policy and programme relevant advocate for public policy linked to broader public health goals of quality standards for public health education.

The growth of PHFI-IIPHs, as a multi-disciplinary education-research-practice focused institution having strong connections with national and international academic and research organizations, has been remarkable. Over the last eight years, PHFI has established four functioning Indian Institutes of Public Health (IIPHs) in Gandhinagar, Hyderabad, Delhi and Phulbani, Odisha. They offer a variety of post graduate diploma courses as full time, distance learning and certificate programs. In addition, the IIPHs partner with the Governments of Madhya Pradesh and Karnataka, to conduct public health diploma programmes for government doctors from state health services, in facilities provided by those governments. It is commendable that in a short span, PHFI has built a technically skilled talent pool of over 600 professionals including large number of PhDs and not just medical doctors but also, economists, nutritionists, engineers, behavioral and social scientists. PHFI has attracted many talented public health professionals who may not have relocated to India in person. The research output has been highly rated peer reviewed journals. This has policy and programs. Further, PHFI partnerships with leading universities in the programs in areas of mutual interest in

PHFI is striving hard to get recognition as a University of Excellence and has sought relevant recognition from the Government. Confering university status on PHFI will provide the much needed stimulus to its constituent Indian Institutes of Public Health to pursue their quest for knowledge and translate it into action by addressing the emerging national and global priorities through interdisciplinary and health system connected teaching and research. This would be the first full-fledged University dedicated to interdisciplinary studies in Public Health in India.

We are happy to know that the first permanent campus of PHFI at Gandhinagar will be ready for launch in January 2015. The foundation stone of this venture was laid by you and its auspicious opening will signal a leap forward in India's capacity building for public health. We are personally aware of the excellent work being done by PHFI and its Indian Institutes of Public Health and would be grateful if the Government of India grants a University status to the Public Health Foundation of India, thereby enabling its efforts to work towards a

Thanks and regards,

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Letter of support to PHFI by  
Indian scientists



Public Health Foundation of India being awarded the PHD Chamber Award for Excellence in Skill Development for the Year 2015 by Shri. Rajnath Singh, Honourable Union Home Minister, Government of India at PHD House. *Photo credit: PHFI*

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# AWARDS AND HONOURS

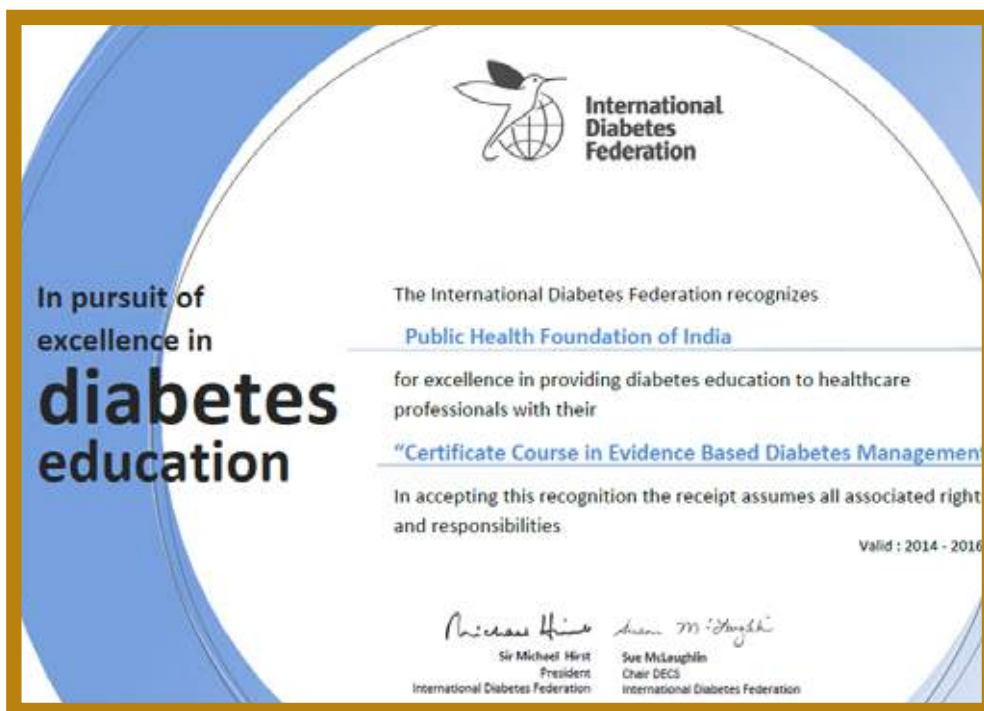
# AWARDS & HONOURS

*A*mong the several honours and awards received by PHFI's faculty and scientists, some are listed below

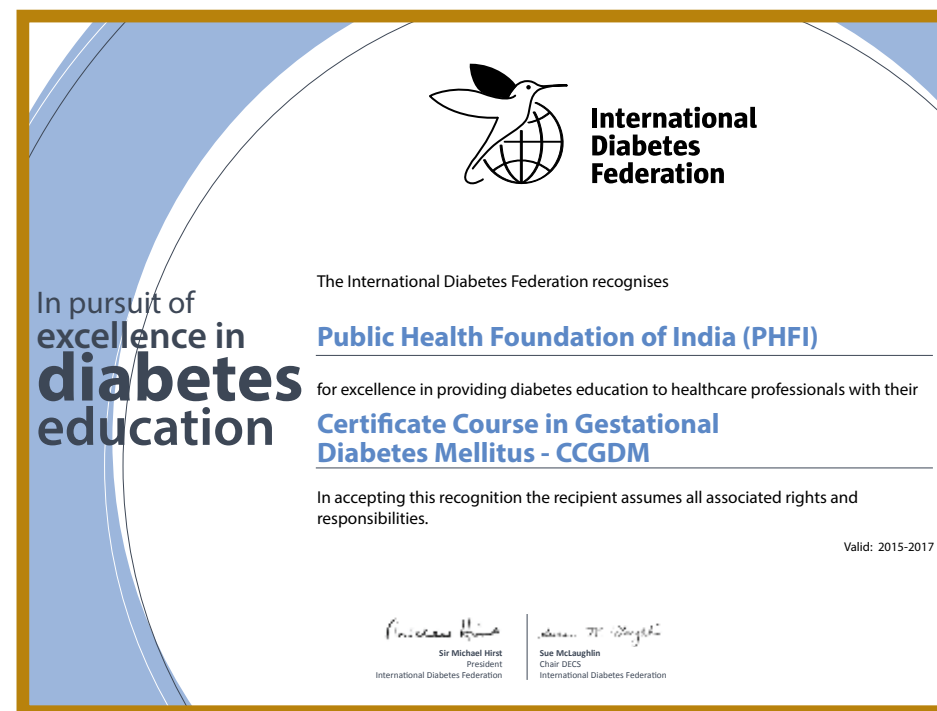
- Public Health Foundation of India awarded the PHD Chamber Award for Excellence in Skill Development for the Year 2015 by the Union Home Minister, Shri Rajnath Singh
- Diabetes training programmes - CCEBDM and CCGDM are recognised by prestigious International Diabetes Federation for the period 2014-2016 and 2015-2017 respectively. CCGDM is also accredited by South Asia Federation of Endocrinology Society (SAFES) from 2014 to 2016
- Certificate Course in Gestational Diabetes Mellitus offered by PHFI was awarded "FICCI Health Care Excellence Award 2015" in the Skill Development Category
- Healthy-India.org has been adjudged Winner of the PC World Web Awards 2008, for excellence in overall performance in the healthcare category. The awards were presented across 31 categories and experts rated about 500 websites to declare the website a winner
- Professor K Srinath Reddy was conferred honorary Doctor of Science (Medicine) by Her Royal Highness Princess Anne at Buckingham Palace.
- Co-Chairs the Health Thematic Group of the UN Sustainable Development Solutions Network.
- Member of the Global Panel on Agriculture and Food Systems for Nutrition
- Independent commission on Health Professional Education
- Lancet Commission on Investing in Health
- Professor Dorairaj Prabhakaran and Dr. Shweta Khandelwal have been appointed to the Food Safety and Standards Association of India's Expert Committee on the regulation of sugar, fats and salt in processed foods

- Professor Ramanan Laxminarayan was recently appointed a voting member of the United States Presidential Advisory Council on combating Antibiotic-Resistant Bacteria
- Professor Vikram Patel named Time Magazine's 2015 List of 100 most influential people in the world
  - Awarded prestigious Institute of Medicine's 2014 Sarnat Prize for his research and Contributions to Improving Mental Health Care in Developing Countries
  - Awarded the 4th annual Chanchlani Global Health Research Award by the Chanchlani Research Centre, McMaster University, Hamilton, Ontario, Canada
- Professor Sanjay Zodpey was elected Chief Editor of the Indian Journal of Public Health

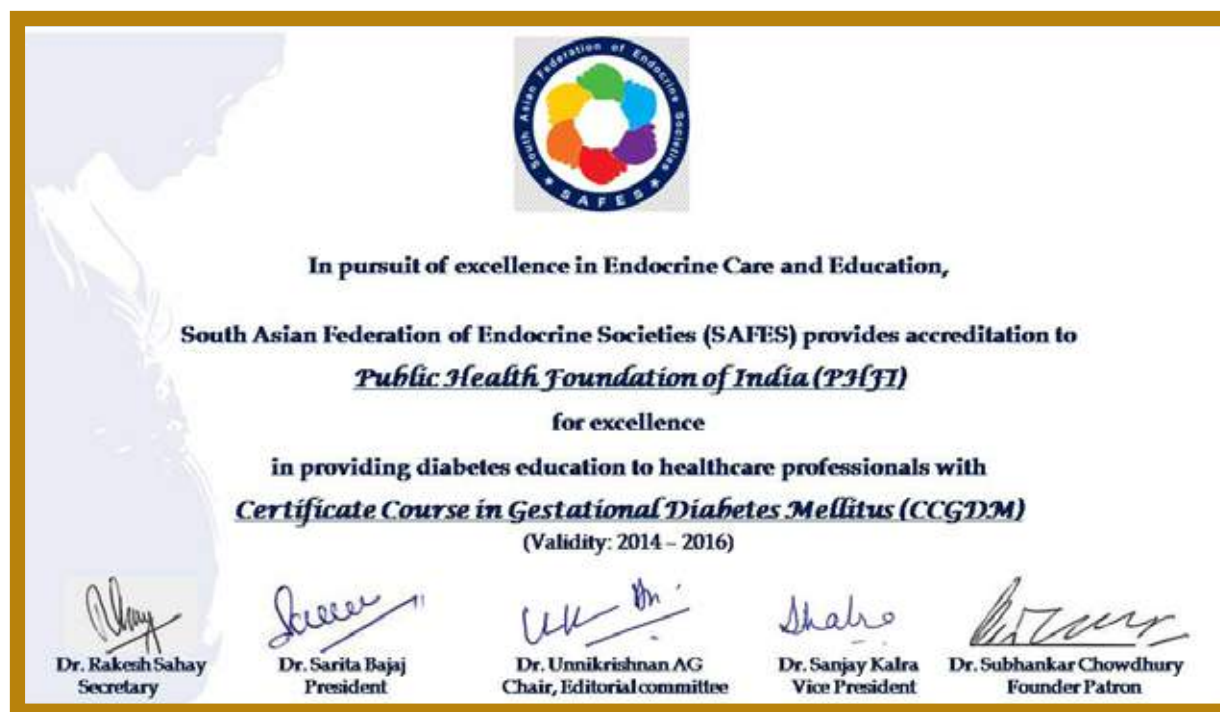
- Dr. Santanu Pramanik was awarded the prestigious Cochran-Hansen Prize of the International Association of Survey Statisticians (IASS)
- Dr. Shifalika Goenka is a member of the Lancet Commission on Obesity
- Dr. Monika Arora was conferred the WHO Director General's World No Tobacco Day Award in 2012 for anti- tobacco advocacy efforts and has been nominated for the Graduate Institute of International and Development Studies, Geneva 300 Women Leaders in global health
- Dr. Kabir Sheikh was elected as Vice Chair of the board of Health Systems Global, an international membership organisation dedicated to promoting health systems research and knowledge translation



International Diabetes Federation (IDF) recognises Certificate Course in Evidence Based Diabetes Management - CCEBDM



International Diabetes Federation (IDF) recognises Certificate Course in Gestational Diabetes Mellitus – CCGDM



South Asian Federation of Endocrine Societies (SAFES) accredited PHFI for excellence in diabetes education for CCGDM module



“Health leaps out of science  
and draws nourishment from  
the society around it.”

— GUNNAR MYRDAL



Photo of children at an Anganwadi Center. *Photo Credit: PHFI*



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We would like to acknowledge staff and colleagues at the Public Health Foundation of India and its constituent units for their valuable contribution in developing this book.