

ADDRESSING NON-COMMUNICABLE DISEASES IN INDIA THROUGH INNOVATION AND MULTI-SECTORAL APPROACH

CONSULTATION PAPER

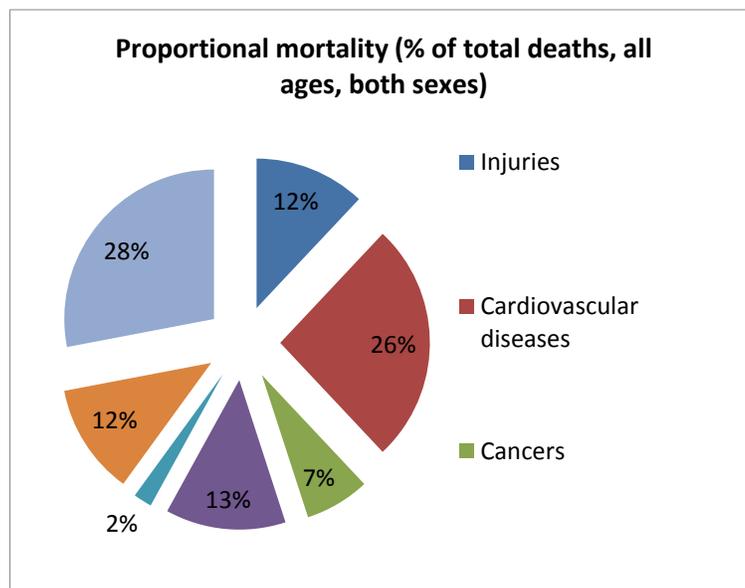
**Jointly published by the Partnership to Fight Chronic Disease (PFCD)
and Strategic Partners Group (SPAG Asia)**

January 2015

Burden of Non-Communicable Diseases (NCDs) in India

Non-communicable diseases (NCDs) are the major cause of mortality in India. According to the Non Communicable Diseases Country Profiles 2014 released by WHO, NCDs are the biggest global killers accounting 38 million deaths every year with a whopping 28 million in low and middle-income countries, including India¹. As per the report, NCDs account for nearly 6 million of the total mortality in India, which is 60% of the total mortality reported annually in India. A progressive rise in the disease pattern of NCDs foretells a serious public health issue.

Heart and vascular diseases, common cancers, chronic lung disease, diabetes, mental illness and injuries are the major NCDs prevalent in India, causing mainly due to alcohol and tobacco use, unhealthy diet, physical inactivity and psychosocial stress. It has also been noted that the prevalence of NCDs as a result of lifestyle patterns have increased twofold in the last decade compared to communicable diseases.



WHO – Non-communicable Diseases (NCDs) Country Profiles, 2014

Some of the major findings related to NCDs are:

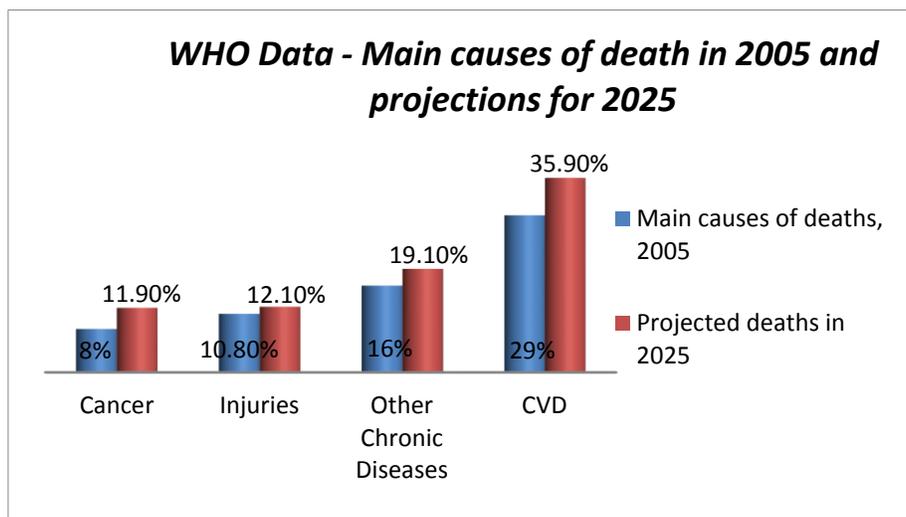
- More than 20% of the population in India has at least one chronic disease and more than 10% of the people have more than one
- It is estimated that 61.3 million people aged 20-79 years live with diabetes in India (2011 estimates). This number is expected to increase to 101.2 million by 2030
- In India, 118 million people were suffering from hypertension in 2000, and this number is likely to increase to 213 million by 2025
- The rate of cardiovascular disease mortality in India in the 30-59-year age group is double that in the U.S.
- Indians get diabetes on average 10 years earlier than their Western counterparts
- Lifestyle changes have led to decreased physical activity, increased consumption of fat, sugar and calories, and higher stress levels, affecting insulin sensitivity and obesity
- The implementation of simple interventions that lower NCD risk factors can result in reducing premature deaths by half to two-third

¹ http://www.who.int/nmh/countries/ind_en.pdf?ua=1

Role of Partnership to Fight Chronic Diseases (PFCD) in Tackling NCDs in India

The Partnership to Fight Chronic Disease (PFCD) is a global organization committed towards raising awareness about NCDs and finding sustainable solutions to tackle the growing disease burden. The PFCD has been working in India for a few years now and has held several multi-stakeholder discussions, with participation from policy makers, public health experts, medical practitioners, patient groups, and pharmaceutical and diagnostic companies.

After conducting two successful back-to-back multi-stakeholder discussions in New Delhi and Mumbai in August 2014, the PFCD hosted two further rounds of discussions on the similar format in Chennai and Ahmedabad in December 2014. The discussions served as the platform to highlight the growing burden of NCDs along with the role of different stakeholders in fighting this epidemic. These discussions brought together experts and opinion leaders from all related fields including policy, medical, academic, research, pharmaceutical, medical technology and patient groups.



The main objective behind the discussions was to develop innovative policies related to NCDs as the PFCD believes it is best to have multi-sectoral approach involving policy makers and stakeholders in tackling the chronic disease burden. Through these initiatives, the PFCD ensures that policymakers, communities, and individuals have the information they need to make the right decisions regarding health and health policy.

These strategic interventions become all more important as the newly elected Indian government has set its vision to establish a universally "accessible, affordable and effective" healthcare system in the country, addressing an issue of paramount importance to achieve inclusive growth. As the government takes its initial steps towards shaping a healthy India, this initiative is aimed towards garnering the attention of policy makers towards developing innovative policies in mitigating NCDs, which will be instrumental in realizing the vision set by the new government.

Outcome of Panel Discussions

The four high-level panel discussions titled "Facing Our Future: Countering Non-Communicable Diseases in India through Investments in Innovation" witnessed participation from more than 40 prominent personalities including policy makers and public health experts.

The discussions provide opportunity to speakers, specialize in different areas of NCDs, to come together on a single platform and share their expertise and experience so that more focused approach can be reached.

Based on the discussions, several key intervention areas emerged:

Strengthen primary healthcare system - The healthcare system in India is still not fully competent to deal with the rising threat posed by NCDs. The best possible, evidence-based care in modern, well-equipped tertiary hospitals is only accessible to the higher socio-economic section of the society, while the poor is still deficient of even basic care. It is rightly said out that no screening would be good if you do not give the treatment. The strengthening of primary healthcare facilities and infrastructure would contribute in providing effective evidence based preventive and chronic care outside hospital. The strengthening of primary healthcare system becomes all more imperative keeping in mind a fact that the hospital is not often the most appropriate place for management of chronic diseases; and primary care physicians and healthcare workers are often the frontline in disease diagnosis.

Provide training to healthcare workers - The training of healthcare workers even at the very basic community level is the major component of strengthening primary healthcare system. The studies have shown that the large majority of care in primary healthcare level is not provided by modern physicians, MBBS and doctors but by so-called alternate systems of medicine or even unqualified people. It has also been observed that in poorer areas, in slums there are hardly any physicians. The well-equipped and qualified health teams including nurses and para-health professionals would better respond to the needs of patients with chronic diseases. Continuous care, access to treatment and self management are the key aspects in tackling NCDs.

Change in lifestyle - It has been rightly said that the awareness starts with intervention in lifestyle behavior. Whether it is tobacco consumption, alcohol consumption, inappropriate diet or physical inactivity, you need to hit at behaviors if you want to reverse this trend and lower the prevalence of NCDs. Several studies have shown that healthy eating, nutrition and regular exercise reduces risk of overweight, obesity and blood pressure, which are the common risk factors for NCDs.

Universal health coverage to save out-of-pocket expenses - The microeconomic impact of NCDs on families and individual is huge as there is no pre-payment mechanism in India that protects people against financial insecurity. A combined study by the Public Health Foundation of India in Kerala found that 73% survivors of cardiovascular event experienced catastrophic health expenditure, 50% had to resort to distress financing that mean they had to sell property, and 40% lost sources of income. These are totally unacceptable loses and clearly these are trends which project rising tide of NCDs in India. It is therefore the need of an hour that the concerned authorities should seriously think about an increased public healthcare financing as well as a private health insurance framework.

Reduce usage of tobacco and alcohol - The consumption of tobacco and alcohol are among the leading risk factors responsible for premature mortality worldwide. In India, 270 million adults consume tobacco, and about 17.5% of the young persons in the age group of 13 to 15 currently consume tobacco in one form or the other. It is also estimated that 1 million die every year in India due to smoking. These statistics compel us to look at some of the risk factors in our context.

Treat NCDs as a whole - There is a crucial need to have specialized teams for NCDs as the focus is on managing and treating the patient, and not just a single disease condition. The effective use of health teams and medications is one of the main components of effective care management. The major benefit behind having multi-disciplinary health professional teams is that it would enable optimization of outcomes from all interventions and ensure continuity of care. The effective and efficient management of NCDs require a shift in the traditional health approach. With a sudden change in lifestyle and demographics, it is important to adopt new approaches and services to treat NCDs.

Formulate new healthcare policy - There is an imperative need to formulate new healthcare policy, especially looking at the current scenario where India is witnessing huge disease burden, resulting in substantial economic and productive loss. The first health policy was made in 1983 with a revision in 2002. Since the last revision lots of new diseases have emerged, and at the same time the new technologies that have become the cutting edge and the way to go in the future.

Affordable access to essential medicines - The cost of treating NCDs has doubled from 1998 to 2005 particularly in urban households. The high cost of medicines and long duration of treatment poses a significant financial burden for low income groups. Access to essential drugs remains a major challenge and it is one area that we need to focus at. It is therefore the need of an hour to improve availability and affordability of essential medicines in the market as it would lower the healthcare expenditure especially for low-income families.

Multi-sectoral approach to address NCDs - It has been highlighted that the lack of privatization of NCDs in the whole healthcare gamut is a major setback as the government is struggling to provide more than 1.2% of GDP on health. The situation looks scarier when we look at an estimate that US\$6.3 trillion is likely to be spent on NCD management in the period between 2012 and 2030. Therefore it is important that apart from the government's contribution in the disease management, the private sector should also come up with innovative approaches like disease-specific insurance products, health campaigns and other technological advancements to address this growing burden of NCDs.

Monitor progress on timely basis - NCDs have a huge disease burden and different programs are required at the regional, state and national level. The regular monitoring and evaluation are the key components behind ensuring success of any program. It is important that one should take into account different aspects including preparing list of indicators, establishing sustainable systems for surveillance, collecting baseline assessment of the indicators, setting targets and time frames for each indicator, and establishing external review mechanisms to achieve fruitful results. The whole process requires coordinated efforts especially when you are targeting such a huge area of NCDs.

Use of traditional methods - We need to start looking at innovative things that can be incorporated in our day-to-day life to help manage NCDs effectively. Studies have shown that traditional approaches including yoga and meditation can be used instead of pulmonary rehabilitation in COPD patients. It has been found that there is really no difference in terms of the improvement in lung function parameters. Yoga is equally effective as compared to the standard pulmonary rehabilitation program which requires a lot of investment. And at the same time the patient acceptability is much higher for the yoga program as compared to the pulmonary rehab program.

Use of popular mediums to raise awareness - It is a well known fact that awareness and prevention is one of the major components to tackle NCDs. On the similar lines, a very interesting idea emerged during the discussion is to use religious leaders to raise awareness by organizing preaching camps as people listen and follow them. These religious leaders can be used to propagate general messages like how to modify lifestyle, how to follow a balanced diet. Also, the use of electronic media in raising awareness about health and health education was also discussed during the meetings.

Strong need for Universal Health Insurance - Universal Health Insurance and Non-Communicable Diseases (NCDs) are among the top priorities of the current government. The continuously increasing rate of death, disability and illness from NCDs in India clearly indicates that there are lots of gaps in our health system, making it incompetent to address the epidemic. The Universal Health Insurance can be seen as the only

realistic path that can prove beneficial in closing the NCD services gap, arguably resulting in doing more for NCDs than for any other health area. Under this scheme, a package of health services can be defined that will be covered by health insurance.

Set-up patient groups - The idea of setting up patient groups is one of the key valuable points that emerged in the multi-stakeholder discussions. These patient groups can be educated and trained by the doctors, and these groups can further share their knowledge in different towns and villages without much hesitation. These patient groups can conduct a meeting once in 15 days or a month and can advise people suffering from NCDs on what to do and what not. This would enable NCDs patients to be on the right track and take the correct approach in managing or eliminating the disease.

NCDs prevention programmes at workplaces - Employees spend majority of their day's time at workplaces, so it is best to introduce behavior change at workplaces itself. It is a good idea to have gym and physical education training session mandatory for all employees. Apart from this, companies can conduct medical check-up camps for their employees once in a month. Additionally, the use of stairs and adoption of healthier eating practices can be promoted. This will not only help the employees but also the companies as these initiatives would create awareness, thus resulting in lesser medical leaves and enhanced productivity.

Government to make health promotion policies - Right eating habit is one of the most effective interventions to combat the growing public health epidemic. By adopting these habits, one can drastically lower the occurrence of chronic disease such as heart attack, diabetes, stroke and cancer. It is well said that fast food takes the people faster to the grave. So the government should work towards formulating health promotion policies which will make it more convenient for people to follow healthier options, and make the changes we desire out of them for NCD prevention and control and also help them sustain those changes.

m-Health - In the current scenario, a major challenge for every sector is to look out for cost-effective solutions and the health sector is no different. With the mobile technology becoming so economical, it can be termed as the best buy for NCDs. The use of this cost-effective technology would help in strengthening health system through the efficient use of mobile technologies and communication channels. This would also empower citizens by offering enhanced access to information relevant to address their health needs arising out of NCDs.

Inclusion of private practitioners - Private practitioners have a greater role in any healthcare deliveries. There is a belief that many of the national health policies have failed or not taken up because they have avoided the private sector. The private sector needs to be equally involved whenever a discussion or a decision on any national health policy is taking place. The private sector can play a significant role by augmenting public services with additional patient education, and at the same time can be used to raise public awareness about the causes of NCDs and treatments available.

Multi-stakeholder partnership to manage NCDs - With the rising incidence of NCDs in India, it is the responsibility of different stakeholder groups to find scalable, feasible and effective interventions to prevent their onset. The disease burden of NCDs is so high that no one single player working in silo can successfully deal with the challenges associated with it. The relevant stakeholders should put forward solutions to NCDs along with the outline required to make these solutions work.

Promote patients' involvement - Healthcare advocates have been long advocating for a need to involve patients in the design and delivery of strategies to prevent and manage NCDs. So far, there is hardly any

involvement of patients in health policy and initiatives despite the fact that people suffering with chronic conditions know what best can be done to improve their situation. Their involvement can help ensure healthcare services are developed to make the most efficient and appropriate use of limited resources.

Training in latest medical technologies - Medical technology is the key to develop an efficient and competent healthcare system. In the present scenario, majority of technology interventions are surgical. With a scarcity of doctors and paramedics in the country, it is important to provide training related to latest medical technologies in the tertiary and the secondary care centers. Whether the training consists of a treatment behavior of a particular disease or implanting a stent or inserting pacemakers, it can prove life saving under particular circumstances.

Promote awareness through all perspectives - Awareness and early diagnosis are the primary and the most important aspect in managing the growing burden of NCDs. All public health experts are of a same opinion that majority of NCDs cases can be avoided if people have the right knowledge and awareness about the chronic disease. So, it is the responsibility of the government, community and corporate to contribute in the health initiative by promoting awareness at their respective levels.

Care and support at each step - As earlier mentioned, awareness is a major aspect of NCDs management, but it is only the first step. It is important that we should provide care and support at each step to the patients. Providing adequate facilities for diagnosis and treatment and then prescribing medications is the general code of conduct, but what matter the most is setting up a mechanism where people are encouraged to adhere to the medications. Disseminating voice messages or preparing an electronic medical record system are some of the technology-based interventions that can come handy to deliver this care.

Focus on multidimensional approaches - We need to really have an ecosystem approach to healthcare, whether it is communicable or non- communicable diseases. It is the lack of awareness, screening, diagnosis, training, financing and efficient referral system that collectively denies access to healthcare. Unfortunately, the media focuses on one dimension which we all know very well about, but we really need to look at the multidimensional approaches. We have to strengthen our primary and secondary care level by identifying all the barriers to care, thus developing a whole care continuum model.

Provide essential drugs at affordable cost - Access to essential drugs is a major challenge in India, especially for NCDs patients whose duration of treatment is long and expenses are high. If the government directly procures some of the essential medicines and provide it at subsidized cost, it can result in reducing intermediary expenses for patients especially from low-income families.

Adopt right approach for communication - As mentioned several times in the past that awareness holds the prime importance in the whole framework of NCDs. To make people aware about the chronic disease and its outcome, one must adopt the right approach to reach to the maximum people. The city population can be covered through WhatsApp or SMS, while for the rural population, whatever board is kept in the hospital they read. This is the basic reason why rural population is more aware about Dengue and Ebola than NCDs.

Conclusion and Way Forward

On a broader parameter, there are three areas that really need to be worked on:

- Surveillance & Policy
- Strengthening of Healthcare Systems
- Healthcare Financing

However, Innovation and Entrepreneurship will be the overarching theme which will run along all the three tracks. This would result in the implementation of a focused approach towards creating a sustainable healthcare environment in addressing the growing burden of NCDs in India.

The burden of NCDs is continuously rising in India, making this chronic disease a leading cause of death. The risk level has increased significantly due to the lack of prevention and awareness, absence of national health policy related to NCDs, and poor healthcare financing and infrastructure. It is therefore important to develop NCDs prevention and control program involving multiple stakeholders and innovative approach. There are already several successful interventions at different levels that can be replicated throughout the country to achieve the desired outcome. With a comprehensive policy-level response and improvement in health systems, India can successfully address the serious issue of NCDs and can present a roadmap for others to follow.

There is an imperative need to have a competent public health system, coupled with innovative strategies, technology-based initiatives and an efficient use of the existing resources. A multi stakeholder approach is the need of an hour where different stakeholders have their specific roles, and their experience and expertise can be utilized to set clear goals and objectives along with a roadmap to accomplish them.

The existing government of Prime Minister Narendra Modi has also emphasized on achieving a holistic healthcare system in its agenda. The government is presently working towards formulating a new Health Policy and National Health Assurance Mission, along with promoting traditional health methods and opening AIIMS like institutions in all states.

The PFCD, through its multi-stakeholder discussions and expert consultation meetings, is aiming to create an ideal platform where prominent policy makers, public health experts and industry professionals work in collaboration to suggest a comprehensive approach that can be instrumental in addressing NCDs and providing accessible and affordable healthcare to all.

ANNEXURE

List of Speakers (New Delhi)

- **Lov Verma**
Secretary, Ministry of Health and Family Welfare, Government of India
- **Dr. Jagdish Prasad**
Director General Health Services, Department of Health and Family Welfare, Government of India
- **Professor K. Srinath Reddy**
President, Public Health Foundation of India
- **Dr Prabhakaran Dorairaj**
Executive Director, Center for Chronic Disease Control (CCDC)
- **Dr Anand Krishnan**
Professor, Centre for Community Medicine, AIIMS
- **Dr. Prashant Mathur**
Scientist 'E', Division of Non-communicable Diseases, ICMR
- **Dr. Shridhar Dwivedi**
Dean/Principal, Professor of Medicine/Preventive Cardiology
HIMSR & HAH-Centenary Hospital, Jamia Hamdard
- **Dr Randeep Guleria**
Professor and Head, Department of Pulmonary Medicine and Sleep Disorders
AIIMS
- **Dr Usha Srivastava**
Director, Centre for Public Health, National Diabetes, Obesity and Cholesterol Foundation (N-DOC)
Head, Public Health Diabetes Foundation (India)
- **Siddhartha Prakash**
Global Expert in Health Access, Innovation and Partnerships, Medtronic
- **Dr. Ratna Devi**
Chief Executive Officer, DakshamA Health and Education
- **Prabhat Sinha**
Programme Manager, NCD Partnership, Eli Lilly and Company

List of Speakers (Mumbai)

- **Sujata Saunik**
Principal Secretary, Public Health Department, Government of Maharashtra
- **Prof S.V. Madhu**
President Elect, Research Society for the Study of Diabetes in India
Professor and Head, Department of Medicine and Endocrinology, University College of Medical Sciences, University of Delhi
- **Dr Daksha Y Shah**
Deputy Executive Health Officer (NCD), Public Health Department, Municipal Corporation of Greater Mumbai (MCGM)
- **Dr Jayesh Lele**
Secretary, Maharashtra Chapter, Indian Medical Association
- **Dr. Rajendra A. Badwe**
Director, Tata Memorial Hospital
- **Dr. Geeta Bharadwaj**
Head, Healthy Workplace Initiative, Arogya World
- **Dr Manish Verma**
Director Medical Affairs (Internal Medicine, Cardio, Hospitals), Sanofi India
- **Yukti Bhargava**
Senior Manager - Reimbursements and Health Economics, Medtronic
- **Prabhat Sinha**
Programme Manager, NCD Partnership, Eli Lilly and Company
- **Dr. Ratna Devi**
Chief Executive Officer, DakshamA Health and Education

List of Speakers (Chennai)

- **Dr. K. Kolandaswamy**
Director of Public Health and Preventive Medicine, Health and Family Welfare Department,
Government of Tamil Nadu
- **Prof (Dr) A Ramachandran**
President, India Diabetes Research Foundation
- **Dr. Sailesh Mohan**
Senior Research Scientist & Adjunct Associate Professor, Public Health Foundation of India
- **Dr. M. Balasubramanian**
Tamil Nadu, State President, Indian Medical Association
- **Dr. A. Muruganathan**
Adjunct Professor, The Tamil Nadu Dr MGR Medical University
Dean Elect - Indian College of Physicians (ICP): 2015-2016
- **Dr. Meenakshi Sundaram**
Dean, Stanley Medical College
- **Dr. Praveen Devarsetty**
Senior Research Fellow (Research and Development), The George Institute India
- **R. Ananthakrishnan**
Director, Cancer Aid Society
- **Siddhartha Prakash**
Director, Corporate Affairs, Medtronic
- **Dr. Gaurav Arya**
Associate Director, Public Health and Policy, Eli Lilly and Company
- **Bala Aryan**
Arogya World
- **Dr. Selvarajan G**
Professor of ENT, Madras Medical College
- **Dr. Ratna Devi**
Chief Executive Officer, Dakshama Health and Education

List of Speakers (Ahmedabad)

- **Dr Jaydip R. Oza**
State Programme Officer, State NCD Cell, Government of Gujarat
- **Prof (Dr) Dileep Mavalankar**
Director, Indian Institute of Public Health
- **Dr. Rakesh Vyas**
Director, Gujarat Cancer and Research Institute
- **Dr. Ratna Devi**
Chief Executive Officer, Dakshama Health and Education
- **Dr. Pankaj M. Shah**
Senior Medical Oncologist
- **Dr. Daksha Y. Shah**
Deputy Executive Health Officer (NCD), Public Health Department, Municipal Corporation of Greater Mumbai (MCGM)
- **Dr. Geeta Bharadwaj**
Head, Healthy Workplace Initiative, Arogya World
- **Dr. Pankaj Shah**
Founder and President, Sanjivani Health and Relief Committee
- **Piyush Gupta**
Principal Secretary, Cancer Aid Society
- **Dr. Bharati Dalal**
Professor of Pathology, Gujarat Cancer Society Medical College
- **Dr. Gaurav Arya**
Associate Director, Public Health and Policy, Eli Lilly and Company