



COURSE REPORT

3RD PGI-AIIMS NATIONAL COURSE ON PUBLIC HEALTH APPROACHES TO NONCOMMUNICABLE DISEASES AT PGIMER, CHANDIGARH

2ND-7TH MARCH, 2017

Course Coordinator

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Contents

Executive summary

Introduction

Proceedings of the Course

Course evaluation

Annexure 1: Agenda

Annexure 2: Group photo

Annexure 3: List of participants

Executive Summary

School of Public Health, Postgraduate Institute of Medical Education and Research (PGIMER) Chandigarh and Center for Community Medicine, All India Institute of Medical Sciences (AIIMS), New Delhi jointly organized 3rd National Course on Public Health Approaches to Non Communicable Diseases (NCDs) from 2nd-7th March, 2017 at PGIMER, Chandigarh. The partners for the course were The Union (IUALTD), South East Asia office, ICMR World NCD Federation and IAPSM. The course was accredited to Punjab Medical Council with credit hours of 4 hours per day.

The objectives of the course were to explain the epidemiologic, socio-economic and demographic transitions fueling the rise in chronic non-communicable diseases (NCDs); discuss the evidence-base of different public health interventions for NCDs; apprise about the global and regional initiatives in NCD prevention and Control; identify and implement strategies for health system strengthening including workforce issues; strengthen capacity for surveillance, monitoring the progress, evaluating NCD prevention and control policies and programmes and research besides enabling interaction between NCD program managers and public health experts in academic institutions.

Fifty one participants (Programme managers, faculty, JRs and SRs) from 16 states of India, including north-eastern and southern states had participated in the course.

The inaugural function of the course was graced by Dr. H S Bali, Director Health Services, (Punjab). The dignitaries also included Dr. Fikru Tullu, Team Leader NCD, South East Asia WHO and Dr. Rana J Singh, Deputy Regional Director (Tobacco and NCD Control), South East Asia, The Union.

The keynote address in the Inauguration was given by Dr. Fikru Tullu, Team Leader NCD, WHO Country Office for India emphasized the role of capacity building for NCD prevention and control and elaborated upon the need for multi-sectoral action for prevention and control of NCDs. He highlighted the importance of Global Action Plan, to operationalize and replicate it.

Dr. H S Bali Director Health Services, (Punjab) highlighted the importance of screening of NCDs especially hypertension, diabetes and the common cancers. He shared the initiatives taken up by Punjab state as VIA screening for cervical cancer to be done by ANMs. The importance of cancer registration and various cancer schemes were highlighted. The dignitaries includes Principle Secretary Health Punjab Ms. Vini Mahajan, Mr. Anurag Aggarwal, Health cum Home Secretary Chandigarh and Dr. Damodar Bachani, Deputy Commissioner NCD, MOHFW.

Day to day scientific sessions along with informative thematic sessions were held. Topics of thematic sessions included many important issues in NCD control: Standard Treatment guidelines, Mental Health, Tobacco Control, Diet and Physical Activity, Alcohol use, research priorities in NCDs, National Programs on NCDs, and Cancer Control. Mobility/Physical activity breaks were made part of tea breaks, wherein physical activity sessions were held with participants by experienced trainers/instructors.

As a part of this course and to increase awareness and to promote the physical activity the outdoor activities were organized to Rose Garden, Rock Garden and Sukhna Lake for the participants. The guest of honour for the valedictory function was Mr. Anurag Aggarwal, Home and Health Secretary, UT Chandigarh and Dr. Subhash Varma, Director PGIMER.

On the day 6th a Walkathon was held from PGIMER, Chandigarh to Sukhna Lake covering a distance of 6kms. This was followed by a “Health exhibition” on life style diseases for full day at National Institute of Nursing Education, PGI which was visited by about 200 residents. On the same day a CME was organized on Cardiovascular Diseases- The major preventable killer.

The course could achieve its broader objectives as reflected by active participation and results of pre and post assessments. Mean pre and post-test group scores showed significant improvement ($p < 0.001$) in the knowledge of participants over a period of 5 days. There was a significant improvement from mean score of 11.7 (SD=4.1) to mean score of 19.1 (SD= 3.7).

Overall, participants appreciated the technical content, ambience, and self-financing aspect of the course and recommended that course should continue in future as it would contribute to build national capacity in implementation of NCD programs in the country. Clinical and public health mix; academic and program mix; practical and theory mix; strong partnership; self-financing and All India participation were some of the unique features of the course.

Introduction

There is a huge capacity gap in the implementation of National NCD programme in India which is affecting the effective implementation of various NCD programme in the country. Realizing this gap and keeping in view of their national status as Centre of excellence in the country, School of Public Health, Postgraduate Institute of Medical Education and Research (PGIMER) Chandigarh and Center for Community Medicine, All India Institute of Medical Sciences (AIIMS), New Delhi jointly organized 3rd National Course on Public Health Approaches to Non Communicable Diseases (NCDs) from 2nd-7th March, 2017 at PGIMER, Chandigarh.

Fifty one (Programme managers, faculty and postgraduate MD, JRs and SRs) from 16 states of India, including north-eastern and southern states participate in the course.

State-wise distribution of participants is given below

- Haryana:3
- New Delhi:8
- Punjab: 5
- Gujrat: 3
- Manipur:3
- Madhya Pradesh: 1
- Jammu and Kashmir: 2
- Orissa:5
- Himachal Pradesh: 4
- Uttar Pradesh: 1
- Chhattisgarh: 4
- Chandigarh: 6
- Maharashtra: 2
- Uttaranchal: 1
- Pondicherry: 2
- Thailand: 1

The course programme is given in annexure 1 and list of participants is given in annexure 3.

Objectives of the course

The objectives of the course were to:

- To explain the epidemiologic, socio-economic and demographic transitions fueling the rise in chronic, non-communicable diseases (NCDs) in India;
- Discuss the evidence-based public health interventions for NCDs;
- Apprise about the global initiatives in the area of NCD prevention and Control;
- Identify and implement strategies for health system strengthening including workforce issues;
- Strengthen capacity for surveillance, monitoring the progress, research and evaluating NCD prevention and control policies and programmes and
- Enable interaction between NCD program managers and public health experts in academic institutions.

Day to Day Proceedings

Day 1: 2nd March, 2017

Inaugural Session

The inaugural function of the course was conducted at National Institute of Nursing Education (NINE) Auditorium from 9.00am -10.00 am on 2nd March, 2017. Dr. H S Bali, DHS, Punjab and Dr. Fikru Tullu, Team Leader NCD South East Asia Region were the Guests of Honor for the function. The dignitaries also included Dr. Rana J Singh, Deputy Director (Tobacco and NCD control) SEAR, The Union; Dr. JS Thakur, Professor, School of Public Health, PGIMER, Course Coordinator, Dr. Anand Krishnan, Professor, Center for Community Medicine, AIIMS, New Delhi, Joint Course Coordinator and Dr. J P Tripathy, Operational Research Fellow, International Union Against Tuberculosis and Lung Disease The Union South East Asia Office.

The Welcome Address was given by Dr. J S Thakur and he highlighted the inter- institutional collaboration for national health development which is highly commendable in future as well. He mentioned the objectives, key issues and the expected outcomes of the course and congratulated the partners as well as the course participants.

Dr. Anand Krishnan gave an insight on the PGI-AIIMS collaboration. He mentioned that the focus of this course would be to enable participants to use public health approaches such as policies, legislations, guidelines for NCD prevention and control. Dr. Fikru Tullu, Team Leader NCD, WHO emphasized on the capacity building and the Multisectoral approach to address NCDs. He mentioned about the replication and operationalization of the Global Action Plan by the states. The lighting of lamp was done by all the dignitaries. The Guest of Honour Dr. H S Bali appreciated the effort of such kind of course on NCDs which poses a major impact to the society. He shared the experience of VIA screening initiated by Punjab and mentioned the importance of screening of NCDs. The vote of Thanks was given by Dr. Gursimer Jeet. She emphasized the unique partnerships for this course which included academic institutions, international partners, and National Research Agency (ICMR) and thanked all the partners, participants and faculty for this courser.

Scientific Sessions

In the scientific sessions, Dr. JS Thakur facilitated the session on 'Epidemiology and Burden Due to NCDs' followed by a session on 'Key Initiatives and Approaches to NCD prevention and Control' by Dr. Anand Krishnan. At the end of the technical session the operational research projects were discussed.

Session 1: Epidemiology and Burden Due to NCDs

Chairperson: Dr. JS Thakur/Dr Fikru Tullu,WHO

Timings: 11:00 AM -1:00 PM

Burden of NCDs and Determinants

Dr. Anand Krishnan

Timings: 11:00AM-11:30 AM

Global, regional and national data were presented supporting the fact that noncommunicable diseases pose major burden globally as well as in developing countries including India in term of mortality, morbidity and disability. The fact that NCDs affect productive age groups and have comorbidities was amply highlighted. Participants were told that there is a strong epidemiological basis for initiating and sustaining efforts to lessen the burden of NCDs by appropriate prevention and control measures. Session was summarized with emphasis regarding the dual burden of infectious diseases and NCDs in developing countries including India.

Chronic Disease Epidemiology

Dr JP Tripathy

Timings: 11:30AM-12:00 Noon

Global population trends, increased life expectancy, four stages of life and death, transition from communicable to non-communicable diseases, across the transition of life and death lifestyle, globalization and urbanization were highlighted. Risk measurement and risk prediction as relative risk, attributable risk, Population Attributable Risk (PAR), WHO/ISH risk prediction, Indian Diabetes Risk score, DALY, YLL and YLD were explained.

Macro and Micro economic Impact of NCDs and Measuring the cost effectiveness of NCD Interventions

Dr. Shankar Prinja

Timings: 12:00AM-1:00 PM

The session started with the Economic Burden of NCDs using the Micro-economic impact: Household, Health System costing perspective and Macroeconomic impact: Societal were detailed with the examples from the research studies done on Cost of Head and Neck Cancer Treatment, Cost of Cardiac Care, Cost of Angioplasty, by number of stents, Cost of Treating Multiple Myeloma and Cost of Trauma Care: Secondary hospital. The Cost Effectiveness of NCD Interventions were explained Concept with the different case studies as HPV, multiple myeloma.

Lunch Break

Timings: 1:00 PM-2:00 PM

Session 2: Key Initiatives and Approaches to NCD prevention and Control

Chairperson: Dr Amarjit Singh/Dr Anand Krishnan

Timings: 2:00 PM-3:30 PM

Global, Regional and National Initiatives in NCD Prevention and Control

Dr. Fikru Tullu

Timings: 2:00PM-2:30 PM

Dr. Fikru started the session with the Proportion of global NCD deaths under the age of 70, Estimated deaths, by Cause, South East Asia Region, 2012, Probability of Dying from One of the Four NCDs Prematurely (ages 30-70), by WHO Regions, 2012. He highlighted the Burden of NCDs in India- Percent death due to four main NCDs at age 30-70: 55% and NCDs accounted to 57% of premature mortality in India (2015). By giving the various examples of interventions the percent decline in CHD Deaths Attributed to Interventions were mentioned. The largest part of premature mortality from the four main NCDs can be prevented if risk factors were eliminated He described the development dimension i.e. the loss of Household Income (Poverty) and NCDs. Further the 2000 global strategy for the prevention and control of NCDs with the examples on varied methods as of WHO NCD Surveillance tools- STEPS (adults), Global School-based Student Health Survey (GSHS) (adolescents), NCD Country Capacity Survey (CCS), Service availability and readiness

assessment (SARA). Other initiatives as WHO Framework Convention on Tobacco Control: Evidence-based tool for adoption of tobacco control measures, MPOWER: Six policies which build on the WHO FCTC and are an integral part of the NCD Global Action Plan and WHO Global NCD Action Plan 2013-2020: Provides guidance to countries on how to develop national action plans. In the end the WHO Global Monitoring Framework on NCDs: 9 global targets to be attained by 2025 were highlighted and the 2014 UN outcome Document on NCDs Roadmap of national commitments from Heads of State and Government to address NCDs was well enumerated.

Life course approach in NCDs

Dr. Bhavneet Bharti

Timings: 2:30PM-3:00 PM

Dr. Bhavneet started the session with the experience and working on Child advocacy, community, schools, adolescents and visually impaired girls. Further the Schematic approach of NCD prevention including the life-course approach for NCD prevention and control and Operationalization of interventions as First 1000 days of life, Adolescence and youth, Working age and older ages. The Causal links of risk factors, Healthy Weight and Adiposity, Anthropometry and adipose tissue compartments: Z scores (mean \pm 95% CI) for Asian Indian babies with white European babies as baseline, Health environment, Indicators for Adolescence stage, Indicators for Working Age and Older Ages and Life course: causal links and societal and environmental factors.

Health Communication: Concept and Role of Health Professionals

Prof Amarjit Singh

Timings: 3:00PM-3:30 PM

Dr. Amarjit highlighted the importance of communication via a short movie named “Yamraj ki Gedi”. The movie emphasized on the changed lifestyle of the people which are leading to non-communicable diseases.

Day 2: 3rd March, 2017

Recapitulation of Day 1:

Timings: 9:00AM-9:30AM

Recap of the previous day was given by two volunteer participants. They summarised all the sessions and praised the ambience and presentation content. Presentations were found to be informative. However Dr. JS Thakur encouraged participants to comments upon process of the course. Dr. Thakur told participants to make recapitulations brief and concise and also highlight weaknesses of previous day.

Session 1: Population Level Interventions for NCDs

Chair Person: Dr. Rana J Singh/ Dr. JS Thakur

Timings: 9:00 AM -11:00 AM

Population wide intervention and Role of Health Promotion

Dr. JS Thakur

Timings: 9:00AM-9:30 AM

The session started with the discussion on how to Address NCDs-Three Pillars i.e. Surveillance, Prevention and Management. Further the concept of Health Promotion & Health Education, Principles, strategies, mechanism and Approaches of Health Promotion. Various approaches as settings based approach includes School, Workplace and community. The studies quoted for the school based approach included Effect of 12 week lifestyle Intervention on Behavioral, Anthropometry and Biochemical Profile of School Children in Chandigarh, India, Impact of 20 Week Lifestyle Intervention Package on Anthropometric Biochemical and Behavioral Characteristics of Schoolchildren in Chandigarh and Developing and implementing an accreditation system for health promoting schools in Northern India: a cross-sectional study. The worksite approach was enumerated by a study as Step wise approach for healthy workplace model in industrial setting in Northern India and in the end of the session the community based approach was explained with the study on Development of Health Promoting District Model in Punjab and Haryana, 2013-2016 and Chandigarh Healthy Heart Action Project (CHHAP). The Cost effective interventions as best buys and good buys and Barriers of Health Promotion were highlighted.

Policy Interventions: Fiscal & Regulatory measures for Salt, Sugar and Fat

Dr. Kanchan Mukherjee

Timings: 9:30AM-10:00 AM

Dr. Kanchan started the session with the focus on Diet and NCDs. Further the Clinical vs Population level interventions, Fiscal and regulatory policies various approaches such as mass media, community education and interpersonal communication will be used for behavior change, Policy intervention steps, Nourishing framework and WoG approach was highlighted.

Current Status of tobacco control in India

Dr. Rana J Singh

Timings: 10:00AM-10:30AM

The session started with the discussion on Tobacco epidemiology- Global, Regional and National Burden and highlighted tobacco is a risk factor for 6 of the World's 8 leading causes of death. Various aspects of Tobacco as Smoking and Second-Hand Smoke Damage Every Part of the Body, prevalence is highest in Mizoram and the percent usage is highest in Uttar Pradesh. Concept of tobacco Control, tobacco control policies, MPOWER i.e. **Monitor** tobacco use and prevention policies, **Protect** people from tobacco smoke, **Offer** help to quit tobacco use, **Warn** about the dangers of tobacco, **Enforce** bans on tobacco advertising, promotion and sponsorship and **Raise** taxes on tobacco. The Status of Tobacco Control in India was enumerated and India is 2nd largest consumer of tobacco. In the end of the session National Tobacco Control Programme and Tobacco Control Legislation at Central level, state level, district level and budgetary allocation were explained.

Mobility Break

Timings: 11:00 AM-11:30AM

Session 2: Dietary Interventions and Measurements

Chairperson - Dr. Anand Krishnan/Dr. Anil Bhalla, PGI

Timings: 11:30 AM-1:00 PM

Health effects of Obesity and Alcohol

Dr. Ajay Duseja

Timings: 11:30AM-12:00 Noon

The session started with the key definition of alcohol, diseases, alcohol impact in men and women, Burden of alcoholic liver disease PGI burden, risk factors and treatment strategies, alcohol and Coronary Artery Disease. The concept of Combo meals, Nonalcoholic Fatty Liver Disease (NAFLD) - The Husband-Wife Combination, Cryptogenic cirrhosis, NAFLD and its spectrum was highlighted. In the end a study on can alcoholic liver disease and non-alcoholic fatty liver disease co-exist was quoted.

Healthy diet, marketing of foods & beverages to children

Dr. Poonam Khanna

Timings: 12:00Noon-12:30 PM

Dr. Poonam initiated the session with concepts of Food pyramid, Balanced diet, Nutrition and child development, Unhealthy diet and NCDs, Junk food, portion control and quantity. She highlighted eating behaviour change Getting Kids Interested in Food and Meals, set meal times, Practical advice in maintain healthy diet, Food marketing and contribution of social media, TV, mobile, celebrity endorsements. From the policy point of view the Principles of guidelines regulating junk food marketing targeted at children (CSE, 2014), Guidelines for regulating Junk Foods and Recommendations on the marketing of foods and non-alcoholic beverages to children (WHO, 2010) were discussed.

Anthropometric Measurements in NCDs

Dr. A K Bhalla

Timings: 12:30PM-1:00 PM

Dr. Bhalla took the practical session for the anthropometric measurements in the Laboratory in Advanced Pediatric Centre, PGIMER and hand on experience was given to the course

participants on physical measurements as height, weight, skin fold thickness, waist circumference etc.

Lunch Break

Timings: 01:30 PM: 02:10 PM

Session 3: Standard Treatment Guidelines for NCDs

Chairperson: Dr. D Behera/Dr Anil Bhansali, PGI Chandigarh

Timings: 2:00 PM-3: 30 PM

Standard Treatment Guidelines and their importance

Dr. D Behera

Timings: 2:00PM-2:30 PM

The session started with the key points on Definition, Advantages Disadvantages, Steps of establishing standard treatment guidelines, Key features and Selection of health problems to be assessed- individual selective and comprehensive. Further the four levels of evidence, Grading of Recommendations Assessment, Development and Evaluation (GRADE) (Grade Working group, 2007), Description of Levels of Evidence: GOLD 2015 and Gold Structure were discussed.

Diabetes Mellitus

Dr. Anil Bhansali

Timings: 2:30PM-3:00 PM

Dr. Anil Bhansali started the session with the Criteria of diagnosing diabetes, HbA1C and mean blood glucose and Glycemic threshold for diabetes specific retinopathy. The advantages of HbA1c as Diagnostic Test and disadvantages of HbA1c as Diagnostic and Monitoring Tool were highlighted. The Correlation between HbA1C, FPG & 2h PG, Recommendations for antihyperglycemic therapy in type 2 diabetes, Metformin as a First-line Drug, Diabetes complication at the diagnosis of T2DM, When to Initiate Insulin at Diagnosis, Early intensive insulin therapy, Conservative management of T2DM: Delaying therapy results in increased A1C and treatment for overweight and obesity in T2DM were explained. Further the Statin Therapy in T2DM, Glycemic Targets: ADA/EASD, Individualization of

Glycemic Targets, Comorbidities: CKD and Comprehensive Diabetes Care: Treatment Goals were discussed.

COPD/Asthma

Dr. Ashutosh Aggarwal

Timings: 3:00PM-3:30 PM

The session started with the highlights on the need, Recent Indian Guidelines, assessment of disease severity, Level of current asthma control and Severity classification of COPD. Further the broad principles of management i.e. Non-pharmacological adjuncts, important drug classes, Stepwise asthma treatment strategy and Strategy to manage stable COPD was well enumerated.

Cancer Screening and Early Detection for cancer control

Dr. Rakesh Kapoor

Timings: 3:30PM-4:00 PM

Dr. Rakesh Kapoor initiated the session with the importance, need and limitations of screening. The WHO guidelines by Wilson & Jungter were highlighted. The Commonly screened cancer i.e. Cervix cancer by VIA and HPV DNA testing, Breast self, clinical examination and mammography, Oral cavity cancer and Prostate cancer by DRE and PSA test. The importance of screening and surveillance for the early detection of adenomatous polyps and colorectal cancer as well as in the Carcinoma Lung was explained.

Osteoporosis and Role of Patient Groups in NCDs

Dr. Sanjay Bhadada

Timings: 4:00PM-4:30 PM

Dr. Sanjay started the session with the magnitude of PMO, Pit falls in diagnosis and management. The concept of Calcium and Vitamin D, Bisphosphonates (BP's) or anticatabolics, Osteoanabolics, Combined anticatabolics (BP's) and osteo anabolics was discussed. Further the newer treatments as Denosumeb, Odanacatib, Romosuzumab were

highlighted. In the end the need for Osteoporosis education and fall prevention was explained.

Role of Rehabilitation in chronic NCDs

Dr. Sanjay Wadhwa

Timings: 4:30PM-5:00 PM

The session started with the concept of Rehabilitation with respect to NCDs and component of disability. World report on Disability by WHO was explained and stated that according to the World Report on Disability, these diseases are estimated to account for 66.5% of all years lived with a disability in low and medium resource countries. The Principles of Rehabilitation i.e. Multidisciplinary Team Approach, Early Intervention, Providing Relief of Symptoms, Ensuring a Return of Function, Attempting Continuum of Care, Improving the Quality of Life were enumerated. Approaches to Rehabilitation: Institution-Based Rehabilitation, Outreach Rehabilitation, Community-Based Rehabilitation and Rights of Persons with Disabilities Act, 2016 were explained.

Day 3: 4th March– Health System Strengthening

Recapitulation of Day 2:

Timings: 8:45AM-9:00AM

The day started with a reflection session in which two participants gave an overview of the previous day's activities.

Session 1: Key Health System Issues in NCDs

Chairperson: Prof Arun Aggarwal, PGIMER

Dr. Anand Krishnan, AIIMS

Timings: 9:00 AM -10:30 AM

Health System Strengthening and Universal Coverage: Dr. Arun Aggarwal, PGIMER

Timings: 9:00AM-9:30 AM

Dr. Arun Aggarwal described conceptual approaches and strategies for addressing health in a population and health system. He discussed system approach and health systems building blocks. He further explained about Universal Health Coverage for prevention and control of NCDs and its three dimensions. He said that financing and strengthening health system to deliver the best buys through a primary health care approach is a pragmatic step to achieve the long term vision of universal coverage for NCDs. He stressed upon the fact that Universal health coverage for non- communicable disease is an unrealistic without health system strengthening.

Health Workforce and capacity building for NCDs: Dr. Anand Krishnan, AIIMS

Timing: 09:30 AM -10:00 AM

Dr. Anand Krishnan in his presentation discussed about health worker definition, health work force classification and NCD workforce pyramid. He said that there is shortage of health workforce and problems like lack of centralized data, skewed production and uneven deployment and distribution of health workers in India. He pointed out that there is imbalance between NCD burden and human resources. He highlighted that NCD specific workforce issues like inadequate quantity, inappropriate spread, lack of right mix of work and workload, motivation issues and lack of focus on health promotion.

Strengthening NCD Management by Primary Health Care: Dr. JS Thakur, PGIMER

Timings: 10:00 AM -10:30 AM

Dr. Thakur told about need of primary health care for NCDs, key features of a health system led by primary care and barriers for delivery of NCD interventions at the primary care level. He discussed about priority conditions for NCD prevention and control and stressed that it should be integrated with other National Health Programme. Then he elaborated WHO PEN Package and its piloting. In the end he gave examples of community Based PHC Interventions in North India.

Mobility Break

Timings: 10:00 AM- 11:00

AM

Session 2: Specific Programme Implementation and Palliative Care for NCDs

Chairs: Dr Sushmita Ghoshal, PGIMER

Dr Paramita Sengupta CMC

Timings: 11:00 AM- 01:00 PM

Public Health Approaches to Palliative care and Role of Home based care:

Dr. Suresh Kumar, Director, WHO Collaborating Centre in Palliative Care

Timings: 11:00 AM- 11:30 PM

Dr. Suresh Kumar told that Palliative care is an attempt to address problems of patients with incurable illness. He explained proposed model for long term care and palliative care and core elements of a community programme in palliative care. He discussed about setting up of locally relevant services by involving local health care professionals, local people and local government.

Role of Yoga in NCDs: Dr Lakshmi Kandhan, MDNIY, New Delhi

Timings: 12:00 PM- 12:30 PM

Dr Yoga is proved to be beneficial in the management of many Life style related and Psychosomatic Disorders. He then described various Yogic interventions in detail. He explained the mechanism of Yoga in promoting health and demonstrated six cleansing techniques.

Compliance Assessment studies for Tobacco control: Dr Sonu Goel, PGIMER

Timings: 12:30 PM- 01:00 PM

Dr. Goel presented the global and Indian scenario of tobacco and its types. He told about prevalence of Tobacco and its harmful effects on almost every organ of the body. He explained in detail about Framework Convention on Tobacco Control (FCTC) and COTPA Act 2003. He elaborated WHO's MPOWER strategy for tobacco. In the end, he told about methodology of compliance assessment-

Lunch Break:

Timings: 01:00 PM- 02:00

PM

Session 3: National Initiatives for NCD Prevention and Control

Chairperson: Mr Hussan Lal, MD, NHM, Punjab,

Moderator Prof SK Jindal

Timings: 2.00 PM -3.30 PM

NPCDCS; Progress, Challenges and National Multi-sectoral Action Plan:

Dr Chinmoyee Das, MoHFW

Timing: 2.00 PM -2.30 PM

Dr. Chinmoyee Das told about program components, infrastructure of NPCDCS and program management units at various levels. She then discussed about NCD services and activities under NPCDCS at different levels of health facilities and achievements of NPCDCS so far. She throws light on new initiatives viz. population-based Screening, inclusion of COPD and CKD and Tuberculosis-Diabetes comorbidities in NCDs, pilot intervention on Rheumatic Heart Disease, integration of AYUSH with NPCDCS, integrated Model for Healthy Districts and Tertiary Care Cancer Centers (TCCC) Scheme. In the end, she discussed National Multisectoral Action Plan for Prevention and Control of NCDs

Panel Discussion: Health System Challenges-State Perspective

Chairpersons: Mr Hussan Lal, Dr. Manju Rani, Dr. Chinmoyee Das, Dr. JS Thakur, Dr. SK Jindal, Dr. Suresh Kumar

Timing: 2.30 PM -3.30 PM

A panel discussion was held wherein program officers of NPCDCS program from different states (Punjab, Chandigarh, Puducherry, Himachal Pradesh, Manipur) highlighted the key issues, challenges and innovations in program implementation. Screening of cervical cancer, diabetes and hypertension at community level has been started in all states under the program, but all are at different level of implementation with almost similar operational issues. Frequent change in operational guidelines was lamented upon by program officers. Mr. Hussan Lal discussed the initiatives of Punjab Government under NPCDCS and advised the course participants that effectiveness and efficiency is the key to a successful program. Dr JS Thakur informed the audience about need and effectiveness of integrated approach towards Noncommunicable Disease control. Panelists described purchase and supply issues of glucometer strips, funding of diagnostic tests, referral of positive cases, lack of awareness among people as key implementation problems faced by each state. Dr. Manju Rani emphasised upon the need of SMART objectives for program which can generate meaningful indicators to measure progress of program initiatives. Regarding the screening activities Dr. Manju advised that implementing a screening program is a very intensive activity in terms of documenting the success of activity. So states should be very careful in documenting the activity.

Tea Break
4.00 PM

Timing: 3.00 PM -

Spiritual Health and Lifestyle Diseases: Swami Satyeshananda, RK Mission

Timing: 4.00 PM -4.30 PM

Swami ji told about true nature of man and said that Human personality is a combination of gross body, subtle body and divine spark. He explained self - betterment mantra and secret of true meditation.

Neighborhood Environment, Air pollution & NCDs: Dr. Ravindra Khaiwal, PGI

Timing: 4.30 PM -5.00 PM

Dr. Khaiwal told about causes of environmental diseases, neighbourhood environment and its impact on health. He discussed interaction of health & environment by ecological triangle, ecological wheel and evolutionary spiral. He explained environmental pathway of NCD, climate change and factors influencing exposure to pollution. In the end, he discussed role of environment in prevention and control of NCDs by formulating evidence based policies and better urban planning

Day 4: 5th March– Surveillance, Monitoring and Research

Recapitulation of Day 3:

Timings: 8:45 AM-9:00AM

The day started with a reflection session in which two participants gave an overview of the previous day's activities.

Session 1: NCD surveillance and Monitoring Framework

Chairperson:

Dr. Arvind Rajwanshi, Professor and Head, Department of Cytopathology and Gyneaeological Pathology PGIMER

Dr. Dharendra Sinha, Senior consultant, WHO FCTC National Institute of Cancer Preventive and Research, Delhi

Timings: 9:00AM-11:00 AM

Global and National Monitoring & Evaluation framework: Dr. Dharendra Sinha, Delhi

Timings: 9:00AM-9:30 AM

Dr. Dharendra Sinha started the session by presenting behavioural and biological risk factors for NCDs and change in their trends over a period of time. He elaborated about multiple and single risk factor survey; national, multi- and single state representative surveys and their pitfalls like lack of periodicity and standardized methodology. He highlighted that quality control is a major challenge for these survey and adequate & sustainable planning for a long period is required for them.

Data sources for NCDs in India: Dr. Ravneet Kaur, AIIMS

Timing: 09:30 AM -10:00 AM

Dr. Ravneet Kaur told about purpose of data for timely action and requirement to be met from data and sources. She further explained about different sources of data at international and national level. She told that data of NCDs also come from non- health sector. In the end, she explained about key data sources for NCD indicators in India.

Mortality Surveillance: Dr. PVM Lakshmi, PGIMER

Timings: 10:00 AM -10:30 AM

Dr. PVM Lakshmi told about purpose of data for timely action and requirement to be met from data and sources. She further explained about different sources of data at international and national level. She told that data of NCDs also come from non- health sector. In the end, she explained about key data sources for NCD indicators in India.

Disease Registry – (Chandigarh and Punjab): Dr. JS Thakur

Timing: 10.30 AM- 11.00 AM

Dr. JS Thakur discussed diseases registry, its purpose and hospital and its types- population based registry. He further told about chronic diseases registries worldwide and international resources available for low and middle income countries. He then elaborated cancer registry, its use in cancer control and key lessons learnt from it. He shared his experience and findings from population based cancer registries in Chandigarh and Punjab.

Mobility Break

Timings: 11:00 AM- 11:30

AM

Session 2: NCD Risk Factor Surveys

**Chairperson: Dr. Dharendra Sinha, Senior consultant, WHO, FCTC, NICPR
Dr Manju Rani, Regional Advisor (Tobacco and NCD Surveillance), WHO**

Timings: 11:30 AM- 01:00 PM

**Tobacco surveillance in India: Dr. Dharendra Sinha, Senior consultant, WHO FCTC
National Institute of Cancer Preventive and Research.**

Timings: 11:30 AM- 12:00 PM

Dr. Sinha in his presentation on Tobacco surveillance in India discussed that population based tobacco indicators can be obtained from NSSO, NFHS, GATS. He presented data from Global Youth tobacco survey of 2003, 2006 and 2009. He told that about 15% youth use tobacco in India. He also described findings of Global Adult Tobacco survey in India and told that over one third of adults (35%) use tobacco in India. Nearly one fourth of adults use ALT. Exposure to second hand smoke (SHS) in homes (40%) and public places (30%) is high but is decreasing. He highlighted that tobacco industry interference is high and tobacco cessation efforts need to be improved.

**STEPS approach to NCD Surveillance: Dr. Manju Rani, Regional Advisor (Tobacco
and NCD Surveillance), WHO**

Timings: 12:00 PM- 12:30 PM

Dr. Manju Rani explained that there is a continuum from risk factors to NCDs to deaths and program intervene at different levels of this continuum. Different components in the continuum of risk factor to diseases need to be monitored. For population sample surveys, key decision on 'routine' NCD risk factors monitoring is to choose between single or multiple risk factor surveys, NCD specific surveys or combined health surveys and frequency of these surveys. Then she further elaborated three steps of risk factor assessment (Questionnaire, Physical and Biochemical measurements) and three levels (Core, Expanded and optional). In the end she told about e- STEPS.

Punjab NCD Risk Factor survey results: Dr. JS Thakur

Timings: 12:30 PM- 01:00 PM

Dr. JS Thakur in his presentation discussed about NCD Surveillance systems and its need, three pillars of WHO to address NCD, and WHO STEPS approach for NCD. He further elaborated issues and Challenges of NCD Surveillance in India. He shared his experience

of Punjab NCD STEPs survey and told that state-wide NCD STEPs Survey contributed significantly for State specific NCD action plan and evidence based NCD Programme in Punjab. He said that Punjab STEPs Model motivated other states in India to undertake NCD STEPs survey and Haryana and Kerala have already started it. He stressed that state NCD STEPs model should be integrated with National Health Mission. It is low cost and sustainable, so should not be dependent on external funding. Capacity building of State Medical Colleges should be done for future STEPs surveys. He also discussed that that mSTEPS- An android application for STEPs survey reduced the cost associated with data collection and analysis as it was paperless Survey.

Lunch Break:

Timings: 01:00 PM- 02:00 PM

Session 3: Evidence Generation and Dissemination

Chairperson: Dr. RS Dhaliwal, Scientist G and Head, NCD, ICMR

Dr Samir Malhotra, Professor, Pharmacology PGIMER

Timings: 2.00 PM -3.30 PM

Research Priorities/Implementation/ Translational research: Dr. RS Dhaliwal, ICMR

Timing: 2.00 PM -2.30 PM

Dr. Dhaliwal told about different types of research and further elaborated translational, operational, implementation research and direction of research. He further explained about national programs on NCDs. He elaborated some operational and implementation research done by ICMR. He told about INDIAB study, Management of Acute Coronary Event (MACE) Registries: A Web based CRF, School Based Intervention to Reduce CVD Risk Factors and Development of a model for strengthening of existing health system to address Non- Communicable Diseases in India.

Evidence based Public Health/ Use of Telemedicine/m Health Technology in NCDs:

Dr. Meenu Singh, Professor In charge: Telemedicine Centre, PGIMER

Timing: 2.30 PM -3.00 PM

Dr. Meenu Singh told about Telemedicine and its application in various fields. She gave few examples of telemedicine in PGI like Punjab Linkage Project, Tele Monitoring Health Camps, Telementoring for Robotic surgery, Asha Jyoti. She then told about evidence based public health, its framework, decision making and its key characteristics. She explained GRADE approach for guidelines development in the end.

Public health approach to Oral Health: Dr K Gauba, Professor & Head, Oral Health Sciences Centre, PGIMER

Timing: 3.00 PM -3.30 PM

Dr. Gauba told about oral health care system in India and need for preventive module of oral health. He highlighted shortage of manpower in oral health. He further explained oral health promotion in India which included oral health package, Target population, utilizing existing health care infrastructure and proposed plan for oral health care in India. In the end, he shared findings of an ICMR Project (2013-14) ‘Dental Caries and Gingival Health in 6-15 Year Children of the two Rural Blocks of Haryana: 27 Years Evaluation’ with participants and told that school teachers can be effective man power in implementing oral health promotion programs in rural children.

Salt reduction for NCD Prevention and Control: Dr Sailesh Mohan, Additional Professor Public Health Foundation of India (PHFI)

Timing: 3.30 PM -4.00 PM

Dr. Sailesh Mohan told the rationale for salt reduction for NCD control and impact of population salt reduction. He said that salt reduction is a feasible, beneficial, cost-effective population based strategy. He gave successful examples of salt reduction from Effective National Intervention Programs (Japan, Finland and UK), Community interventions (Portugal, China, Ghana) and Clinical trials (DASH, TOHP). He further elaborated current status of salt intake in India, Potential Strategies for Salt reduction, barriers and enablers for salt reduction strategy and policy challenges. He pointed out that multi-sectoral approaches are required to help achieve the UN-WHO target of 30% reduction by 2025

Tea Break

Timing: 4.00 PM -4.30 PM

Operational Research Project discussion

Timing: 4.00 PM -5.00 PM

Participants were divided into 6 groups and asked to identify and prioritize problems in their state. Each group identified operational research project and discussed it with Dr. JS Thakur.

Day 5: 6th March 2017

Recapitulation of Day 4:

Timings: 8:45A.M.-9:00A.M.

The day started with a reflection session in which two participants gave an overview of the previous day's activities.

Session 1: Operational Research Project discussion: Dr. JS Thakur, PGIMER

Timings: 9:00AM-9:30 AM

Dr. JS Thakur started the day highlighting that on country's health canvas, focus on NCDs has appeared in last one decade. Progress is underway with major actions in last 5 years. He called for a shift in medical curriculum to align them with need to focus on growing epidemic of NCDs⁰. As part of course, participants worked upon operational research projects. Dr. Thakur highlighted that the ultimate success of course will lay in enhanced capacity of course participants to get their research projects approved for funding under Program Implementation Plans.

Session 2: Injuries and Other NCDs

Chairperson: Dr JS Thakur, PGIMER, Dr. Dhirendra Sinha, Delhi

Timings: 9:30AM - 11:00 AM

Injury prevention and control: Dr. Girish, NIMHANS, Bangluru

Timings: 9:30AM-10:00 AM

Dr. Girish started the session by presenting the morbidity and mortality data on injury. He elaborated that injury is an established public health problem and stressed the need to establish injury surveillance system in India. He further explained the India injury pyramid and Haddon's matrix in relation to injury, components of pre-hospital care, essential trauma care, goal of the decade and its framework.

Public health approaches to CKDs: Dr. Rajiv Saran, University of Michigan, USA

Timing: 10:00 AM -10:30 AM

Dr. Rajiv Saran told that kidney disease is a common disease and it is cost multiplier. He explained morbidity and mortality attributable to kidney disease is rising worldwide and presented data from million death study. He highlighted that awareness of chronic kidney diseases is very low and stressed the need of community and health systems-based robust surveillance systems for CKD. He further elaborated that Diabetes, HT, Obesity, Genetic, Low birth weight, Toxins and Infections are common risk factor for CKD. Early detection in those with risk factors can be done by serum creatinine and urine protein testing. He told that its optimal disease management include lifestyle changes, medications, follow-up

Operational Guidelines for NCD/Cancer Screening and promoting community participation: Dr. Rajani Ved

Timings: 10:30 AM -11:00 AM

Dr. Rajani Ved Compare mortality due to NCD in India with other selected countries. She emphasised the comprehensive primary health care and NHM led Health System Strengthening. She elaborated population based screening, calculation of case load for screening, service delivery framework, indicators of monitoring and supervision and challenges and issues in population based screening. She told that team composition and numbers, scattered population, population coverage and density, birth rate, load of midwifery services at the SC, and communicable diseases burden may affect workload of FLW team

Mobility Break

Timings: 11:00 AM- 11:30

AM

Session 3: Mental Health

Chairperson: Prof. Ajit Avasthi, PGIMER,

Dr. Sandhya Ghai, NINE, PGIMER

Timings: 11:30 AM- 01:00 PM

Mental Health Burden and co-morbidity: Dr. Sandeep Grover

Timings: 11:30 AM- 11:50 AM

Dr. Sandeep Grover told about importance and burden of mental disorder. He explained link between mental & physical health and explained how linking of mental health with NCDs is beneficial. He further elaborated that insufficient funding, centralized of mental health resources in and near big cities and in large institutions, complexities of integrating mental health care effectively in primary-care services, lack of trained manpower in mental health care, deficient public health skills and experience in mental health leaders are some challenges for mental health. He explained Big 5 in improving mental health are community engagement, reducing stigma, integrated services, social support and work.

Mental National mental health Survey: Dr. Girish, NIMHANS

Timings: 11:50 AM- 12:15 PM

National Mental Health Survey (2015) data were presented by Dr. Girish. Survey was conducted with objectives to estimate the prevalence, identify the treatment gap, health care utilisation, disability and socio-economic impact due to mental and substance use disorders from a representative population of India. In addition, they assessed available mental health services and systems in the states being surveyed. Based on uniform and standardised data collection procedures from this nationally representative population, it is estimated that, prevalence of any mental disorder in India above the age of 18 years was 10.6%. The life time prevalence in the surveyed population was 13.7%. He further informed that 1 in 20 people in India suffer from depression. He informed that health information systems still do not prioritise mental health. Public awareness activities and mental health financing need to be streamlined. In the end, he concluded that development of state level action plan, robust web-based monitoring system and national commission on mental health is the need of the hour.

Experience of Punjab Mental Health Survey: Dr Subhash Das, GMCH-32

Timings: 12:15 PM- 12:30 PM

Dr. S. Das from GMCH- 32, Chandigarh shared experience of Mental Health Survey in Punjab. He shared that survey like this required community participation and cooperation from different people (health officials, administration, sarpanch etc) and they learned a lot from this survey. He presented the key challenges that were faced in implementing the NMHS (2015) in Punjab.

Reducing mHealth Gap: Prof. Ajit Avasthi, PGIMER

Timings: 12:30 PM- 01:00 PM

Dr. Ajit Avasthi encouraged course participants to work towards reduction in big mental health gap which India is facing. He said that reasons for mental health gap are deficits in mental health facilities, human resources, funding for mental health services and governance in the form of policy and legislation. He further elaborated Mental Health Gap Action Programme (mhGAP), 2008, its framework and limitations. Mental Health Initiatives in India to reduce the mental health gap Barriers to reducing mental health gap in India However, he informed that, though slowly, the government is working towards it in the form of National Mental Health policy, 2014 and proposed Mental Healthcare Bill, 2016.

Lunch Break:

Timings: 01:00 PM- 02:00 PM

Session 4: Partnership, Advocacy and Leadership for NCDs

Chair: Ms Vini Mahajan, Dr Damodar Bachani, MOHFW

Timings: 2.00 PM -3.30 PM

Public Health Leadership for NCDs: Prof Arun Aggarwal, PGIMER

Timing: 2.00 PM -2.30 PM

Dr. Arun Aggarwal discussed managerial grid, key leadership behaviour, four development level care, leadership style appropriate for various development levels and leadership skills in Public Health. Further he deliberated upon the application of leadership in context of NCDs and conceptual approaches and strategies for addressing health in a population.

Advocacy for NCDs: Ms. Vaishakhi Malik, WLF

Timing: 2.30 PM -3.00 PM

Ms. Vaishakhi from World Lung Foundation elaborated about social marketing campaigns, breakthrough model of Strategic Health Communication, factors affecting impact of social media and advocacy interventions for NCDs. She emphasised the importance of awareness about the campaign and media influences on behaviour, social norms and policy uptake. Use of media allows for creating alliances having community members which may be helpful to support the cause. She gave example of campaign “#Answer Sunita” for social media advocacy.

Building Partnerships for NCDs: Dr. Damodar Bachani, MOHFW

Timing: 3.00 PM -3.30 PM

Dr. Damodar Bachani talked about importance of building partnerships in NCD prevention and control. In the presentation, he highlighted that major partnerships for health promotion and NCD prevention exist but they are not sufficient and funding is lacking. The private sector has made considerable progress in enhancing general engagement in health-promotion and disease-prevention programs and urged all to explore Public Private Partnerships in running interventions under NPCDCS. He emphasised that the Government, companies as well as researchers must be held accountable for tackling NCDs. The roles of government and the private sector need to change in ways that make their actions mutually supportive versus being confrontational. More “whole of government approaches” to NCD prevention and control are needed.

Tea Break

Timing: 4.00 PM -5.00 PM

Project Presentation

Timing: 4.00 PM -5.00 PM

Participants from 6 groups formed for developing operational research project presented their project proposals. Each projects was discussed in detail with critical comments by chair as well as other participants. Following projects were identified by participants for operational research in their state:

1. Salt intake behaviour among people living in hilly areas and its health impact
2. To evaluate opportunistic screening under NPCDCS at District Hospital
3. Strengthening screening for Diabetes Mellitus and Hypertension at community Level
4. Multisectoral and Multilevel approaches to tobacco control at district level
5. Workplace based Non-communicable Disease Intervention under NPCDCS
6. Provision of Healthy and safe food in school: Intervention study

Valedictory function

Timing: 5.00 PM -6.00 PM

The guest of honour for the occasion was Mr. Anurag Aggarwal, Home and Health Secretary, UT Chandigarh and Director PGIMER Dr. Subhash Varma. The other

dignitaries who attended the ceremony included Dr. D. Bachani (MoHFW, New Delhi). The participants (Dr. Biswajit Modak and Dr. Rifat Jan) as well as reputed faculty of course Dr. Dharendra Sinha and Dr. Rajiv Saran spoke about their experiences in the course and lauded the efforts led by the team for making the course successful. Dr. D. Bachani floated idea of coming up with a NCD course district program managers of NPCDCS or conducting the course at more frequent levels. He also advised to expand this course to regional and international level.

Dr. Subhash Varma highlighted the importance of interventions among school children in the area of NCD prevention and control. He advised all course participants to put school health at agenda of their NCD prevention efforts as this will contribute towards saving the next generation.

Next, the Guest of Honour Mr. Anurag Aggarwal addressed the gathering and congratulated the organizers on arranging this interactive course which is really output oriented as well. Mr. Anurag stressed upon the role that habits play in the development of NCDs. He advised all to control the risk factors of NCDs by changing habits. He informed that the effort of the Chandigarh administration will be intensified for prevention and control of rising burden of NCDs. The physical activity will be promoted in a big way and more stadiums will be constructed to facilitate the physical activity options for city residents. He lauded Dr. Thakur's effort of putting Chandigarh on global map through World NCD Congress 2017. He also requested Dr. Bachani to allow filing of supplementary PIPs having the six operational research projects developed during the course. He further extended support for co-hosting the World NCD Congress being organised in Chandigarh from 4th-6th November, 2017 by PGIMER, Chandigarh and World NCD Federation.

Dr. Thakur in his address to the audience thanked the guest of honour, Mr. Anurag Aggarwal and the other dignitaries who attended the valedictory function. He proposed the scope of introducing Physical Activity Day in Chandigarh. He emphasized that Chandigarh should be promoted as "Healthy City along with smart city. He further informed about accreditation of Health Promoting schools project being undertaken in Chandigarh in which all schools (public as well as private) have been assessed. He thanked the cooperation offered by course participants in successful completion of course. He also thanked all the partners and sponsors including International Union against Tuberculosis and Lung Diseases (IUATLD); World NCD Federation (WNF); Indian

association of Preventive and Social Medicine (IAPSM) AND NINE for their support. The last day of the course will be the National CME on Cardiovascular Diseases which is the foundation day of World NCD Federation and is celebrated as World NCD Day. The course participants will be organizing a walkathon on 7th March, 2017 from Kairon Block, PGIMER, Chandigarh at 6:30 AM followed by exhibition on lifestyle from 10 AM- 4:30 PM at NINE, PGIMER, Chandigarh.

Day 6: 7th March 2017

National CME on cardiovascular Diseases: A major preventable killer concluded at PGI with health Exhibition Organized by World NCD Federation and PGIMER, Chandigarh

The CME was organized to mark the Second Foundation day of World NCD Federation and also the World NCD Day. The CME included thematic sessions on Cardiovascular Diseases, Hypertension, Acute Coronary Syndrome (ACS) Registry, Lipid Management and Role of nurses in management of NCDs. Prof. Ajay Bahl, Professor, Dept. of Cardiology, PGIMER, Chandigarh, discussed the burden, risk factors and control strategies of heart failure. He iterated that heart failure is more common in the elderly and since the population of above 60 years has increased in India from 62 million in 1996 to 113 million in 2016, the rate of heart failure has subsequently amplified. He deliberated coronary artery disease, diabetes, hypertension and rheumatic heart disease as risk factors for heart failure. Since diabetes and hypertension is highly prevalent among Indians, the rates of heart failure are likely to increase in the near future. Dr. Rajesh Vijayvergiya, in his discussion on management of Acute Coronary Disease and Myocardial infarction (MI), mentioned that an ECG should be done within 10 minutes of bringing a patient with MI in emergency. The multi-center, population based ACS Registry in Himachal Pradesh was discussed by Dr. PC Negi, Prof. & Head, Cardiology, IGMC, Shimla. Dr. Negi stated that population based registry data is limited in our country and is a requisite to design evidence based implementation programs to alleviate STEMI. Dr. Sanjay Jain, Professor, Internal Medicine, PGIMER shared that hypertension affects 118 million people in India, and that DASH diet, reduction in sodium intake, exercise, weight loss and have a significant effect in lowering hypertension. Dr. Saurabh Mehrotra, Assoc. Prof., Cardiology highlighted the use of appropriate intensity of statin therapy for lipid management. The Global experience from Canada on Nurse Practitioner for Chronic NCDs

was discussed by Dr. Beryl Pilkington, Associate professor, York University Canada. She highlighted of task shifting and the role of Nurses in NCD prevention.

The Inauguration session of the CME was held in the presence of Director PGIMER, Dr. Subhash Varma. The session started with the welcome speech by Dr. J S Thakur and he highlighted the importance of CVD prevention and congratulated the governing council of world NCD federation for organizing such a big platform for NCDs and thanked the Dr. Mohan Lal Singh family. Next the progress of the activities of the World NCD Federation was highlighted by Dr. Rakesh Kapoor followed a special lecture on Ethical Medicine by Prof. Arun Chokalingam, University of Toronto, Canada and highlighted the various objectives as Medicine is a divine profession, treat your patients with care and you are the hope they look up to, practice with highly ethical approach, research as Guidance for Health Care Policies development, safeguarding of Research Participants (Legal, Ethical and Professional), Approval/Oversight of Research and research as an Economic Development Driver. The session is followed by the address of Dr. Subhash Varma and a Vote of Thanks by Dr. Rajesh Vijayvergiya.

The last session of the day was on RF/RHD management by Dr. Himanshu Gupta, assistant Prof of cardiology, PGIMER. Dr. SS Rana, Professor of Cardiology, PGIMER highlighted the Need and supply mismatch in Cardiac Surgery. The last lecture on Cardiac Imaging & ECG interpretation by Dr. Parag W. Barwad, Associate Prof, Cardiology, PGIMER followed by a quiz on the same.

A panel discussion was moderated by Dr. JS Thakur, Professor, School of Public Health and where the lead speaker, Dr. Arun Chockalingam, discussed about the levels of prevention from primordial to tertiary prevention, rise of CVDs globally and nationally, transition from infectious to NCDs and public awareness is less in the most of the parts of the world. Empowering people with health and behaviour change and the concept of smart city was highlighted in the discussion.

Dr. Damodar Bachani highlighted the CVDs Interventions under NPCDCS and focus on early diagnosis of Hypertension at health facility level and population level. Dr. Rajiv Saran spoke about the Chronic Kidney Diseases and it's huge multiplicative effect on health, disease and cost multipliers. He also emphasized on the importance of implementation science and that science needs to be strong to make a surveillance system viable. Dr. Dharendra Sinha spoke about tobacco and cardiovascular diseases. He elaborated about mortality and morbidity due to second hand smoke. He said that Tobacco

cessation program are not tacking the second hand tobacco. He emphasized the need of the training programs at the tertiary level. Dr. Dheeraj Khurana told that stroke incidence globally is coming down. But it is a cause of major disability. He highlighted the need of stroke care units and rehabilitation centres. Mrs. Kavita Narang emphasized on task shifting for CVD risk assessment/prediction and highlighted that the nurse practitioner are underutilized for this task.

A Health Exhibition on 'Healthy Lifestyle' was also organized as a part of the CME from 10:00 am to 5 pm at NINE, PGIMER and inaugurated by Dr. Rakesh Kashyap, DHS, Chandigarh. There were 10 stalls with various themes such as Health Promotion in different settings, Right food choice, ADITI, CVD risk assessment etc. The exhibition was visited by more than 300 people.

Course evaluation:

Credit hours

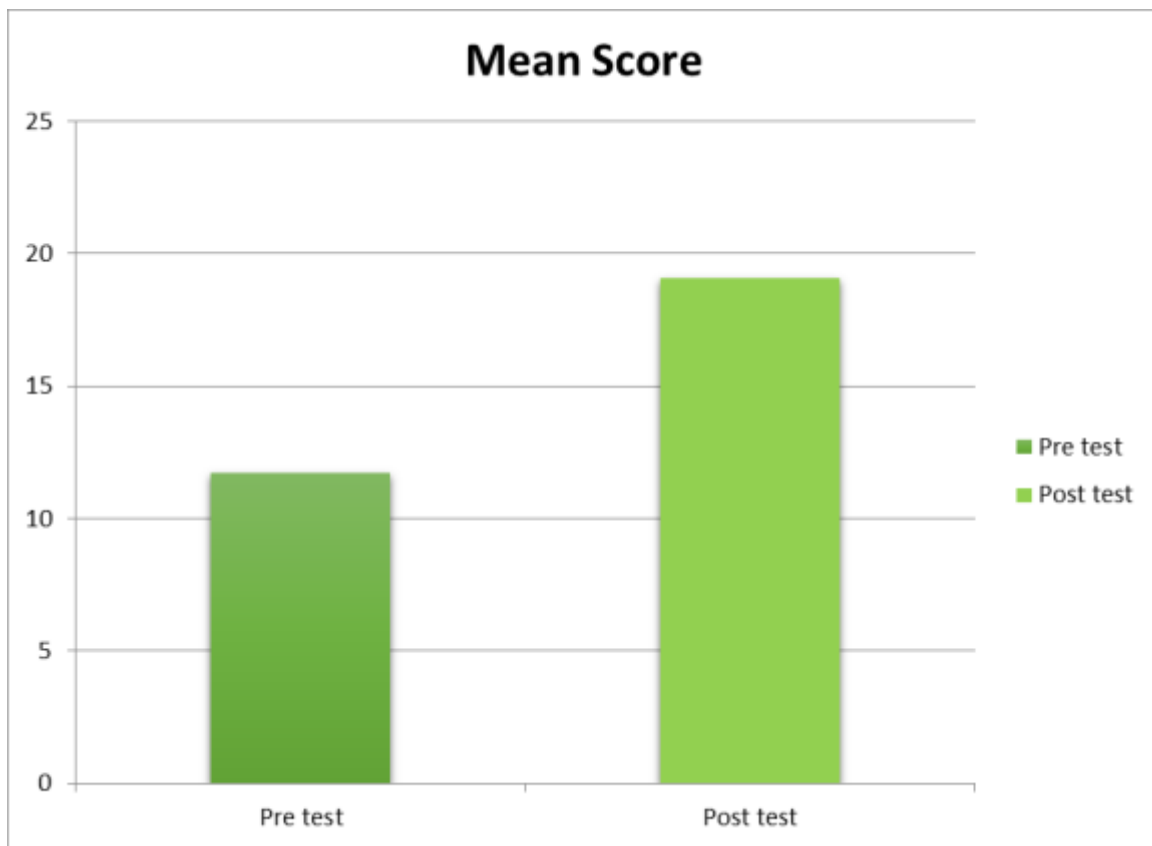
A total of 20 credit hours have been awarded to the course by Punjab Medical Council. Over the period of 5 days course has been taught by 50 resource person of different specialities.

Operational Research project evaluation:

The project proposals were evaluated by evaluators on 10 point criterion. The project work was evaluated on 10 dimensions comprising of research question, objectives, methodology, expected outcomes, innovations, presentation quality taken to present. Each dimension comprised of 5 marks each.

Result of pre and post course assessments

Range of Pre- test varies from 3- 18 while for test it was 8- 24. Mean pre and post-test group scores showed significant improvement ($p < 0.001$) in the knowledge of participants over a period of 5 days. There was a significant improvement from mean score of 11.7 (SD=4.1) to mean score of 19.1 (SD= 3.7).



Recommendations

1. Keeping in view the overwhelming response for the course, its organization at the national level should be continued and may be considered for up scaling at international level.
2. Optimal mix of classroom sessions, skill-based practicals along with outdoor activities was liked by the participants and should be continued.
3. Partnership with international and national agencies was quite useful and should be continued.
4. The mix of public health and clinical faculty worked well
5. In order to enhance sustainability of the course and widening partnership, more active involvement of MOHFW should be explored in future.

Annexures

Annexure 1: Agenda

<p><i>Partners: World NCD Federation, Indian Council of Medical Research, IUATLD, PMC, NINE, IAPSM</i></p> <p>Venue – NINE Auditorium, PGIMER, Chandigarh</p> <p>Dates: 2nd March to 7th March 2017 Time: 8.45-9AM Reflection Session, 9-5.30PM Sessions</p>		
Time	Theme	Facilitator/ faculty
8.00- 9.00	Registration of participants and Pre Course Assessment	
9-10.30	Inaugural session Introduction of participants	PGI, AIIMS, WNF, IUATLD,WHO
Day 1 Thursday, 2nd March. Burden, determinants and Global and National Initiatives		
<i>Epidemiology and Burden Due to NCDs – Chairperson: Dr. JS Thakur/Dr Fikru Tullu,WHO</i>		
11.00-1.00	Burden of NCDs and Determinants Chronic Disease Epidemiology Macro and Micro economic Impact of NCDs Measuring the cost effectiveness of NCD Interventions	Dr. Anand Krishnan, AIIMS Dr JP Tripathy, The Union Dr. Shankar Prinja, PGI
<i>Key Initiatives and Approaches to NCD prevention and Control - Chairperson: Dr Amarjit Singh/Dr Anand Krishnan</i>		
2-00-3.30	Global, Regional and National Initiatives in NCD Prevention and Control Life course approach in NCDs Health Communication: Concept and Role of Health Professionals	Dr. Fikru Tullu, WHO Dr. Bhavneet Bharti, PGI Prof Amarjit Singh, PGI
3.45 -5.30	Operational Research in NCDs and Tobacco control and Protocol writing for OR Project Project Allotment, Leisure Walk in Rose Garden	Dr. J P Tripathy, The Union
Day 2 Friday, 3rd March – Population and Individual Level Interventions		
<i>Population Level Interventions for NCDs Chair Person: MD NHM, Haryana/Dr Rana J Singh/ Dr. Dharendra Sinha</i>		
9.00-9.30	Population wide intervention and Role of Health Promotion	Dr. JS Thakur, PGIMER
9.30.- 10.00	Policy Interventions: Fiscal & Regulatory measures for Salt, Sugar and Fat	Dr. Kanchan Mukherjee. TISS, Mumbai
10.00-10.30	Best buys for tobacco control and beyond	Dr. Dharendra Sinha, WHO
10.30-11.00	Current Status of tobacco control in India	Dr. Rana J Singh, IUATLD
<i>Dietary Interventions and Measurements – Chairperson – Dr. Anand Krishnana/Dr Anil Bhalla, PGI</i>		
11.30-01.00	Health effects of Obesity and Alcohol Healthy diet, Marketing of foods & beverages to children Anthropometric Measurements in NCDs	Dr Ajay Duseja, PGI Dr. Poonam Khanna, PGI Dr. Anil Bhalla, PGI

<i>Standard Treatment Guidelines for NCDs Chairperson: Dr. D Behera/Dr Anil Bhansali, PGI Chandigarh</i>		
2.00 -3.30	Standard Treatment Guidelines and their importance Diabetes Mellitus COPD/Asthma Cancer Screening and Early Detection for cancer control	Dr D Behera, PGI Dr. Anil Bhansali, PGI Dr. Ashutosh Aggarwal, PGI Dr. Rakesh Kapoor, PGI
4.00-5.00	Osteoporosis and Role of Patient Groups in NCDs Role of rehabilitation in chronic NCDs	Dr. Sanjay Bhadada, PGI Prof. Sanjay Wadhwa, AIIMS
Day 3 Saturday, 4th March– Health System Strengthening		
<i>Key Health System Issues in NCDs - Chairperson: Dr Rakesh Kashyap, DHS Chd/Prof Arun Aggarwal</i>		
9.00-10.30	Health System Strengthening and Universal Coverage Health Workforce and capacity building for NCDs Strengthening NCD Management by Primary Health Care	Dr. Arun Aggarwal, PGI Dr. Anand, CCM, AIIMS Dr. JS Thakur, PGI
<i>Specific Programme Implementation and Palliative Care for NCDs – Chairperson – Dr HS Bali DHS, Punjab, Dr Sushmita Ghoshal, PGI Co-Chair Dr Paramita Sengupta CMC</i>		
11.00-12.00	Stroke is preventable and Treatable Public Health Approaches to Palliative care and Role of Home based care	Dr. Dheraj Khurana, PGI Dr Suresh Kumar,, Calicut
12:00-01:00	Role of Yoga in NCDs Compliance Assessment studies for Tobacco control	Dr Lakshmi Kandhan, MDNIY, New Delhi Dr Sonu Goel, PGI
<i>National Initiatives for NCD Prevention and Control - Chairperson: Mr Hussan Lal, MD, NHM, Punjab /DGHS Haryana Moderator Prof SK Jindal</i>		
2.00 – 3.30	Panel Discussion: NPCDCS; Progress, Challenges and National Multi-sectoral Action Plan ICMR contribution to NCD Programmes Health System Challenges-State Perspective	Dr Chinmoyee Das, MoHFW Dr Ashoo Grover, ICMR/DHR MP/Punjab/Haryana/HP/states
4.00-5.00	Spiritual Health and Lifestyle Diseases Neighborhood Environment, Air pollution & NCDs	Swami Satyeshananda, RK Mission Dr. Ravindra Khaiwal, PGI
5.00-5.30	Group Work	
Day 4 Sunday, 5th March– Surveillance, Monitoring and Research		
<i>NCD surveillance and Monitoring Framework Chairperson –Dr KK Talwar/Dr. Arvind Rajwanshi</i>		
9.00-10.00	Global and National M& E framework Data sources for NCDs in India	Dr Dharendra Sinha, Delhi Dr Ravneet Kaur, AIIMS
10.00-1100	Mortality Surveillance Disease Registry – Stroke/MACE/Young Diabetes Cancer (Chandigarh and Punjab)	Dr. P V M Lakshmi, PGI Dr. JS Thakur, PGI
<i>NCD Risk Factor Surveys Chairperson – Dr. Dharendra Sinha/Dr Manju Rani, WHO</i>		
11.30-1.00	Tobacco surveillance in India (GATS/GYTS/GSHS)	Dr. Dharendra Sinha, WHO

	STEPS approach to NCD Surveillance Punjab NCD Risk Factor survey results	Dr. Manju Rani, WHO Dr. JS Thakur
<i>Evidence Generation and Dissemination Chairperson: Dr. RS Dhaliwal, ICMR/Dr Samir Malhotra, PGI</i>		
2.00-3.30	Research Priorities/Implementation/ Translational research Evidence based Public Health/Use of Telemedicine/m Health Technology in NCDs Public health approach to Oral Health	Dr. RS Dhaliwal, ICMR Dr. Meenu Singh, PGI Dr K Gauba, PGI
4.00-5.30	Salt reduction for NCD Prevention and Control Group work, Review of progress of operational research project	Dr Sailesh Mohan, PHFI Key Course Faculty
Day 5 Monday, 6th March – Other NCDs		
<i>Injuries and Other NCDs Chairperson: Dr JS Thakur, PGI, Dhirendra Sinha, Delhi</i>		
9.00-11.00	RF/RHD control-Punjab Experience Injury prevention and control Public health approaches to CKD Operational Guidelines for NCD/Cancer Screening and promoting community participation	Dr. JS Thakur, PGI Dr. Girish, NIMHANS Dr. Rajiv Saran, USA Dr Rajani Dev, NHSRC
<i>Mental Health - Chairperson: Prof. Ajit Avasthi, PGI, Dr Sandhya Ghai, NINE, PGI</i>		
11.30-1.00	Mental Health Burden and co-morbidity National mental health Survey Experience of Punjab Mental Health Survey Reducing mHealth Gap	Dr. Sandeep Grover, PGI Dr. Girish, NIMHANS Dr Subhash Das, GMCH-32 Prof Ajit Avasthi, PGI
Partnership, Advocacy and Leadership for NCDs; Chair: Ms Vini Mahajan, Dr Damodar Bachani, MOHFW		
2.00-3.30	Public Health Leadership for NCDs Advocacy for NCDs Building Partnerships for NCDs	Prof Arun Aggarwal, PGI Dr. Vaishakhi Malik, WLF Dr. Damodar Bachani, MOHFW
4.00 - 5.30	Project Presentation, Post Course Assessment and Closing	
Day 6 Tuesday, 7th March – Second Foundation Day National CME of World NCD Federation		
<i>Theme:</i>		
6.30AM	Walkathon from PGIMER to Sukhna Lake (5Kms)	Director PGIMER, Faculty, All Course Participants
9.00-5.00	Cardiovascular Diseases-The Major Preventable Killer	Chair: Prof JS Thakur, PGI Organizing Secretary: Prof Rajesh Vijayvergiya, Advanced Cardiac Centre, PGI

Annexure 2: Group Photograph of course participants



Annexure 3: List of course participants

	Name	Designation	Department	State
1.	Dr. Manoj Kumar Gandhi	Junior Resident	RPGMC, Tanda	<i>Himachal Pradesh</i>
2.	Dr. Sangeeta Narang	Additional medical superintendent	ESIC-MH New Delhi	<i>New Delhi</i>
3.	Dr. R Duraisamy	Medical Officer	NPCDCS, Puducherry	<i>Puducherry</i>
4.	Dr. K Santhimathi	SPO	NPCDCS, Puducherry	<i>Puducherry</i>
5.	Dr. Nirpal Kaur Shukla	Junior Resident	Hind institute of Medical Sciences, Lukhnow	<i>Uttar Pradesh</i>
6.	Dr. Sameena Dar	Senior Resident	SKIMS Medical College	<i>J&K</i>
7.	Dr. Rifat Jan	Senior Resident	SKIMS Medical College	<i>J&K</i>
8.	Dr. Manisha Bhatia	District Coordinator Health Rise project (NCDs)	Mamta Health Institute for Mother and child, Shimla	<i>Himachal Pradesh</i>
9.	Dr. Gaurav Sethi	State Program Coordinator, Health Rise project (NCDs)	Mamta Health Institute for Mother and child, Shimla	<i>Himachal Pradesh</i>
10.	Dr. Ruchi Chaturvedi	Demonstrator	GMCH-32	<i>Chandigarh</i>
11.	Dr. Neha Tyagi	Assistant Prof.	School of medical sciences	<i>New Delhi</i>
12.	Dr. Rajnish Jain	Junior Resident	Himalayan institute of medical sciences,	<i>Uttaranchal</i>
13.	Dr. Gursimran Wadhawan	Health officer	Save the Children	<i>New Delhi</i>
14.	Dr. Prajna Paramita Giri	Asst. Prof.	AIIMS, Bhubaneswar	<i>Orissa</i>
15.	Dr. Ruhi Dass	Resident Medical Officer (First year)	Seth G.S.M.C & KEM Hospital, Mumbai	<i>Maharashtra</i>
16.	Dr. Pramod Chandra	Deputy Director	DHS, Bhopal	<i>Madhya Pradesh</i>
17.	Dr. Anmol Goyal	Asst Prof.	MM Medical and college, Solan	<i>Himachal Pradesh</i>
18.	Ms. Supriya Thapar	Phd student	Maastrich university	<i>Chandigarh</i>
19.	Dr. Sonu H Subba	Additional Prof.	AIIMS, Bhubaneswar	<i>Odisha</i>
20.	Dr. Somorendro Singh	Deputy Director	DHS, Manipur	<i>Manipur</i>
21.	Dr. Premchandra Singh	District nodal officer	DH Churachandpur, Manipur	<i>Manipur</i>
22.	Dr. Sheirangba Waikhom	State Prog. Coordinator NCD	NHM, Manipur	<i>Manipur</i>
23.	Dr. Parveen Boora	Nodal Officer	NCD, Jind	<i>Haryana</i>

24.	Dr. Sunil Jadhao	Programme coordinator	SEARCH, Gadchiroli	<i>Maharashtra</i>
25.	Dr. Neha Dahiya	Resident Doctor	Maulana Azad Medical College	<i>New Delhi</i>
26.	Dr. Kevin Suraj Dasari	Consultant	Immorcell Life Sciences And Medvarsity	<i>New Delhi</i>
27.	Dr. Munish Bhatia	DMC	NPCDCS, Ropar	<i>Punjab</i>
28.	Dr. Harpreet Mann	DMC cum DNO	NPCDCS, Jalandhar	<i>Punjab</i>
29.	Dr. Navdeep Singh	DMC cum DNO	NPCDCS, Tarn Taran	<i>Punjab</i>
30.	Dr. S K Setia	DMC cum DNO	NPCDCS, Moga	<i>Punjab</i>
31.	Dr. Navtej Pal Singh	DMC cum DNO	NPCDCS, Mohali	<i>Punjab</i>
32.	Dr. Avinash Khare	District Nodal officer	Bilaspur	<i>Chhattisgarh</i>
33.	Dr. Rakesh Aggarwal	District Nodal officer	Korba	<i>Chhattisgarh</i>
34.	Dr. L K Dave	District Nodal officer	Kankor	<i>Chhattisgarh</i>
35.	Dr. G C Sharma	District Nodal officer	Bastar	<i>Chhattisgarh</i>
36.	Dr. Naresh Satsangi	SMO	NCD, Hisar	<i>Haryana</i>
37.	Mr. Pradeep Vashist	Pharmacist	DGHS HQ	<i>New Delhi</i>
38.	Mr. Yogesh Kumar	Public Health Nursing Officer	DGHS HQ	<i>New Delhi</i>
39.	Mr. Dinesh Kumar Jangir	Public Health Nursing Officer	DGHS HQ	<i>New Delhi</i>
40.	Dr Suraj Kuriya	DPO-NPCDCS	District NCD Cell, Kutch	<i>Gujrat</i>
41.	Dr. Khushbu Makadia	DPO-NPCDCS	District NCD Cell, Arvalli	<i>Gujrat</i>
42.	Dr. Divya Barot	DPO-NPCDCS	District NCD Cell, Sabarkantha	<i>Gujrat</i>
43.	Dr. Chulabati Sahu	ADMO	PH, Bargarh	<i>Odisha</i>
44.	Dr. Amarendra Nath Mohanty	ADMO	PH, Puri	<i>Odisha</i>
45.	Dr. Biswajit Modak	Sr. Training Consultant	NHM	<i>Odisha</i>
46.	Dr. Sushma Kumari Saini	Lecturer	NINE, PGIMER	<i>Chandigarh</i>
47.	Dr. Anil Garg	Nodal Officer	NPCDCS	<i>Chandigarh</i>
48.	Dr. Rajesh Raman	Physician	Physician Consultant	<i>Thailand</i>
49.	Dr. Naveen Yadav	Medical Officer	CHC Kheri Kalan, Faridabad	<i>Haryana</i>
50.	Ms. Latika Rohilla	Public Health Nursing Officer	PGIMER	<i>Chandigarh</i>
51.	Dr. Sukhwinder Kaur	Lecturer	NINE, PGIMER	<i>Chandigarh</i>

