Contents

1. **Noncommunicable Diseases: Health Burden, Economic Impact and Strategic Priorities** **1**
   Jai Prakash Narain, Tanzin Dikid, Rajesh Kumar
   - Disease Burden: Mortality and Risk Factors *2*
   - Link with Poverty and Economic Development *7*
   - Tackling Noncommunicable Diseases: Opportunities and Challenges *9*
   - Key Strategies and Interventions *9*
   - Priorities for National Programs *13*

2. **Addressing Social Determinants and Risk Factors to Prevent Noncommunicable Diseases** **19**
   Manmeet Kaur, Rajesh Kumar
   - Social Determinants and Risk Factors *20*
   - Health Inequities *25*
   - Addressing Social Determinants and Risk Factors for NCDs *25*

3. **Combating Noncommunicable Diseases: Global Best Practices and Lessons Learnt** **31**
   Shanthi Mendis, Oleg Chestnov
   - Lessons Learnt *31*
   - Effective Interventions *33*
   - Cost-effectiveness of Interventions *36*
   - Translating Lessons Learnt and Best Practices into Action *36*

4. **Noncommunicable Diseases in India: The Burden, Priorities and Future Plans** **42**
   DC Jain, Ritu Rana, Jagdish Prasad
   - Magnitude of Noncommunicable Diseases in India *42*
   - National Priorities and Future Plans *51*
   - Issues and Challenges *52*
   - Plans for Program Expansion *54*

5. **Cardiovascular Diseases: Burden, Risk Factors, Prevention and Control** **63**
   Meenakshi Sharma, Nirmal K Ganguly
   - Heart Disease Burden in India *64*
   - Why Indians are at Higher Risk? *67*
   - Emerging Risk Factors *70*
   - Prevention and Control of Heart Diseases *72*

6. **Diabetes Epidemic in India: The National Policy Imperatives** **81**
   Rajendra Pradeepa, Ranjit Unnikrishnan, Viswanathan Mohan
   - Epidemiology of Diabetes in India *81*
   - Consequences of Type 2 Diabetes *84*

- Priority Interventions *85*
- Challenges and Opportunities in Diabetes Control *87*

7. Cancer Screening and Prevention in India **94**
Surendra Shastri, Aditi Shastri

- Cervical Cancer *95*
- Breast Cancer *100*
- Oral Cancer *101*
- Other Cancers *103*

8. Chronic Obstructive Pulmonary Disease: Epidemiology and Management **109**
Sajal Ajmani, SK Sharma

- Epidemiology of Chronic Obstructive Pulmonary Disease *109*
- Pathogenesis *111*
- Clinical Features *111*
- Prevention and Management *114*

9. Mental Illness: Integrating its Management with Other Noncommunicable Diseases **123**
Rajesh Sagar, Shrigopal Goyal

- Mental Health Disorder Classification *123*
- Epidemiology *124*
- Relationship Between Mental Health Disorder and Other Noncommunicable Diseases *128*
- Mental Disorders in Special Populations *130*
- Integration of Mental Health Promotion and Mental Illness Prevention with Chronic Disease Prevention *136*

10. Childhood Obesity and its Determinants **142**
Narendra Kumar Arora, Priyanka Rani Garg, Rakesh Pillai

- Definition and Measurement of Obesity *142*
- Obesity Epidemiology *145*
- Individual Level Environmental Factors *151*
- Societal Factors *153*

11. Health Promotion and Education: The Bedrock of Noncommunicable Diseases Prevention Programs **166**
Saroj S Jha

- The Challenge of Noncommunicable Diseases and Role of Health Promotion *167*
- Methods and Channels used for Health Communication *173*
- Evaluation of Health Promotion Programs *175*

12. Rational Use of Medicines in Diabetes and Hypertension **178**
Sangeeta Sharma, Ranjit Roy Chaudhury

- Diabetes Mellitus *178*
- Hypertension *185*

13. Research Priorities in Noncommunicable Diseases: Evidence Driving National Policy and Program **193**
Prashant Mathur

- Role of Evidence in Shaping Policy and Programs *194*
- Research Requirements to Address Noncommunicable Diseases *195*

14. Communicable Diseases Leading to Noncommunicable Diseases in South-East Asia Region **201**
Rajesh Bhatia

- Can Communicable Diseases Lead to Noncommunicable Diseases? *202*
- Prevention of Noncommunicable Diseases through Control of Communicable Diseases *205*
- Way Forward *207*

15. Combating Noncommunicable Diseases: Applying Lessons Learned from Tuberculosis and HIV/AIDS **209**
Anthony D Harries, Rony Zachariah

- Burden and Challenge of Managing Noncommunicable Diseases in Low and Middle-income Countries *209*
- DOTS Tuberculosis Programme Framework *211*
- Managing Noncommunicable Diseases using the DOTS Paradigm *213*
- Other useful Lessons for Noncommunicable Disease Community from HIV/AIDS Programmes *220*

16. Intersectoral Collaboration for the Prevention and Control of Noncommunicable Diseases **225**
Subarna M Dhital, Robert F Woollard, Arjun Karki

- A Perspective on the Need for Intersectoral Collaboration *225*
- Noncommunicable Diseases determinants: The Public Health Relevance of Modifiable Factors *227*
- Bringing about Intersectoral Collaboration *234*

17. Health System Response to Noncommunicable Diseases: A Public Health Approach **242**
Monir Islam

- Noncommunicable Diseases in South-East Asia Region *243*
- A Public Health Approach to Noncommunicable Diseases *246*
- Implementing the Public Health Approach: The Framework *249*
- Health System Building Blocks *251*

18. Noncommunicable Diseases: A Global Response and the Role of the United Nations **259**
Jacob Kumaresan, Nicholas Banatvala, Susan Shin

- Noncommunicable Diseases: The Health Tsunami of the 21st Century *259*
- A Global Commitment to Act *260*
- A Whole of United Nations' Response *262*
- Enabling Functions for Multisectoral Action through Multistakeholder Partnerships *268*

Index *271*