



# URBAN HEALTH

EMERGING PUBLIC HEALTH PERSPECTIVES



*Editors*

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EDMOND FERNANDES  
INDU GREWAL

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**Dr. Indu Grewal** is Additional Deputy Director General in Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India and looking after three National Health Programs (NPCBVI, NMHP and NPPC). She graduated from the prestigious Maulana Azad Medical College, New Delhi and is a post graduate from National Institute of Health and Family Welfare, New Delhi, India. During her CHS service, she held various official positions and gained 22 years of demonstrated experience by working at various levels of management in the field of public health, with Government of India. She has published more than 20 research papers in various international and national journals. She is dynamic, industrious, focused and enjoys taking on new challenges, especially in innovative projects, which requires varied experience, initiative and talent. She has authored in several popular books for doctors and allied health science students in India. She has been awarded the Public Health Specialist of the Year 2013; Distinguished Service Award in TB seal campaign and Certificate of Appreciation for contribution in Intensified Pulse Polio Programme 2001-02.

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Published By

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We are eternally grateful to the team at CHD Group - a public health organization holding UNECOSOC Special Consultative Status for their moral and practical support they gave the project.

Special thanks is due to our friends and well wishers around the world, we will remain grateful for your love and affection.

**Edmond Fernandes**  
**Indu Grewal**



## **FOREWORD**

It gives me immense pleasure to know that a book on 'Urban Health' and its different aspects has been written by a team of experts. We all are aware of the need of urbanization in India for better life but at the same time we also know the negative outcomes of urbanization in form of air pollution, water scarcity, traffic mismanagement, unemployment, poverty, crimes, etc. In India, the small towns are getting urbanized at a higher speed and more number of cities will be urbanized under the Government of India's plan to develop 100 Smart Cities. While urbanization is needed for a modern country like India, the impact on air, water and environment has to be properly understood. In 2017, population residing in urban areas in India was about 34%. By 2030, about 40% of India's population will reside in urban areas.

The news about pollution in Delhi for atleast 2 months each year due to stubble burning is known to all. Everyone is also aware about the photo of flooding of whole Mumbai in heavy rainfall. Bengaluru and other emerging urban cities have different issues with traffic, migration, housing, transport, medical care, etc.

I am happy that all the experts have written on different aspects of urbanization like the link between health and air pollution, requirement of safe drinking water and sanitation challenges in urban slums, use of artificial intelligence to promote urban health, providing healthcare to marginal urban population and requirement of social capital for sustainable urban future, etc. which is quite comprehensive to understand the issues behind and with urbanization and the solutions. I have gone through the book and found that the topics have been written in a lucid and understanding format so that everyone can understand.

The book will not only be important to town planners, policy makers to understand urbanization from a practical point of view but also to laymen like students to understand the requirement of urbanization while comparing and containing its negative impacts. An Utopian situation will be when our cities will be on self-sustainable basis in regards to all requirement. I wish the writers all success.

**Dr Madan Mohan Sethi**

# Introductory Remark

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When we picture Urban Health from the very context of public health, it compels us to recognise the way a constant shift from rural to urban spaces is defining our times quite predictably. This has emerged as a leading global trend, wherein movement is taking place in cities. Naturally, so to say, this particular trend will present both opportunities and challenges as cities work towards welcoming a huge influx of population from rural areas. The cascading risks emerging from natural disasters, climate change, extreme weather events, as well as pandemics like COVID-19 present additional complexities for cities. These challenges will undoubtedly strain health systems and have public and global health consequences. Therefore, mitigating these risks and addressing these consequences will definitely call for a new algorithm of change that include policy thinking, addressing policy gaps, and building inclusion at different levels of governance and across line ministries.

When this book was penned by our authors, the COVID-19 pandemic was still an unknown disease at large. However, we encourage our readers to carefully and contextually consider how the impact of COVID-19 is causing a detrimental impact on urban health. India has become a classic example of how urban spaces have become death zones due to an overwhelmed health system. On top of that, the disruption in social, economic, commercial, and legal determinants of health have become a watershed moment for sustainable development and the 2030 agenda.

A post-COVID-19-world presents us with a brand-new opportunity to engage in risk-informed planning, for academia to build upon translational urban health, for non-governmental organisations to factor in new thinking to invest and create innovative policies to protect civilians, build social protection mechanisms, address health inequity and inequality, and also combat climate change to create a better world for coming generations. After all, the actions we take today will define the results we get tomorrow.

In this book, scholars were called upon to voice their opinion and thoughts around areas of their expertise. Various issues have been addressed from an urban disease dynamics perspective. Diverse thinking with suggestive frameworks will form the very basis for policy gaps in the pages ahead.

As editors, it would be our immense pleasure to hear your thoughts, benefit from your knowledge and inspire more action around urban health, and finally add more colour to the emerging public health perspectives in our rapidly changing world.

Edmond Fernandes  
Indu Grewal

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# **Part 1**

## **Contemporary Urban India**

# Social Determinants of Urban Health

*Amir Maroof Khan<sup>1</sup>*

**About the author:**

<sup>1</sup>Professor of Community Medicine, University College of Medical Sciences,  
New Delhi, India.

**Abstract :** People who are socially and/or economically poor have been found to have shorter life expectancies as compared to those of the same age who are not as worse off socially or economically. Such observations compel us to look at hitherto ignored aspects of health and well-being. Of all the putative factors influencing health outcome, social determinants remain the most nebulous and the most complex. In an era where we are increasingly coming to terms with the idea of relative truths and relative realities, it becomes imperative to appreciate the social nuances of an intervention aimed at promoting health and the effect of the same. Health programmes targeted at the community need to be informed by the prevalent social practices and norms which may prove to be of benefit or detriment for such programmes. India today sits on the cusp of a tectonic shift in health, with the burden of non-communicable diseases having caught up with that of communicable diseases. At the same time, there is an upsurge in the incidence of emerging and re-emerging infections. The changing nature of the interaction between man and his environment has exposed humanity to novel threats. In such an increasingly precarious scenario, social engineering becomes increasingly more vital as a tool to combat impending adverse health outcomes for the community. Factors as seemingly far removed from health as education and female autonomy have been found to influence health outcomes. Unless health policies are informed by the various social factors that may influence the intended outcome, their outreach shall remain limited and inconsistent. In the pursuit of ensuring health for all, we will need to ensure health in all policies.

**Keywords:** Social determinants of health; Sociology; Urban health; Health impact assessment; Health equity

# Urban Health and Pharmaceuticals

*M.K. Unnikrishnan<sup>1</sup>, Gautam Satheesh<sup>2</sup>, Sandra Puthean<sup>3</sup>*

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<sup>3</sup>Sandra Puthean - Research Assistant, National College of Pharmacy, Kozhikode, Kerala, India

**Abstract :** One cannot understate the importance of urbanisation in the substantial re-mapping of health contours of the society. Implicit, unwritten social norms for sharing resources have been replaced by systems that thrive on competitive behaviour and insatiable appetite for growth. The limited liability companies that run the pharmaceutical empire, a major contribution of urbanization, seem to operate as engines of profit, even at the cost of neglecting human lives. The emergent socio-economic transitions have transformed both health and human behaviour in urban societies. Assessing the role of pharmaceuticals in urban health is challenging, given that the principles of market economy render pharma companies vulnerable to competing interests that place shareholders above patients. The pharmaceutical industry is driven by two engines pulling in different directions; the patient (inspired by obligations of ethical conduct) and the shareholder (running on the fuel of profit). Much of the available knowledge about medicines is both generated and disseminated to healthcare providers by the pharma innovators. The patients who consume the medicines know almost nothing about its mechanisms or indications. Prescribers (who do not pay) make decisions for patients who pay. This “knowledge asymmetry” between the consumer (patient) and the provider (pharma-prescriber nexus) places the patients in a vulnerable position. Protecting the patient being a state responsibility, taxpayer has to finance the structural and functional checks and balances that guarantee patient safety. Regulation of pharma has thus become an important public duty, a major urban preoccupation, and an expensive, resource-intensive appendage of the institution of healing, adding many layers of complexity to the contemporary healthcare machinery. Urban healthcare should be assessed in the context of these complexities. Economic models should incentivize and operationalize healthcare more effectively at institutional, national and global levels. However, inventing and implementing solutions without dulling the edge of pharma innovation is challenging.

**Keywords:** Pharmaceuticals; Knowledge asymmetry; Evidence-based medicine; Clinical trials; Emerging markets

# Health of India's Urban Poor Children

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## **About the authors:**

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<sup>2</sup>Amol R Dongre - Head, Department of Extension Programme (SPARSH). Professor in Community Medicine and Medical Education, Pramukhswami Medical College (PSMC), Karamsad, Gujarat, India.

**Abstract :** Urbanization is a cause and effect of heightened industrial and economic growth in a region. However it leads to unique set of health challenges, particularly to vulnerable children of urban poor. There is an assumption that urban health indicators are better than their rural counterparts but disparity in health indicators within urban areas occur widely. So, one part of the urban people enjoy most of all the benefits of urban living, whereas the other part namely the slum dwellers live in worse conditions. Infant mortality and morbidity, prevalence of infections, malnutrition, health service availability and utilization are worse in almost all slum than non-slum regions. This chapter describes the differentials in the social determinants of health and health status of urban slum and non-slum children of four major cities of India. It also gives recommendations to reach these poor urban children in a more comprehensive manner. The key areas are: 1) to develop accurate error free data to understand the real health burden of urban poor children; 2) to develop intersectoral and interdisciplinary coordination to achieve health for all children; 3) to promote public private partnerships between various stakeholders enhanced by transparency and ease in communication; 4) to empower community for sustainability of health interventions; 5) to address health related social and cultural determinants; 6) to change the assumption that urban population does well and improve on investing for urban slum public health services; 7) to generate cost effective sound public health interventions through scientific research; 8) using innovative approach to increase the access to health services by improving both supply and demand; and 9) to plan urban housing and other infrastructures that improve health promotion and safety.

**Keywords:** Urban children; Urban poor; Health for children; Child nutrition; Urban slums

# Artificial Intelligence and Urban Health

*Rashmi Agarwalla<sup>1</sup>, Ekta Gupta<sup>2</sup>, Rambha Pathak<sup>3</sup>*

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<sup>3</sup>Rambha Pathak - Dean and Prof and Head, Dept. of Community Medicine, Government Institute of Medical Sciences, Greater Noida, India.

**Abstract :** Artificial Intelligence (AI) in healthcare involves use of computer algorithms and software for performing tasks typically thought to require human reasoning and problem-solving skills. Urbanization in India has accelerated at a very fast pace with 34% of Indian population residing in urban areas. As the healthcare industry is growing rapidly across the world and in India, there is tremendous pressure to meet the needs of patients and provide quality care in urban areas. Complex problems of urban health and wellbeing cause millions of premature deaths annually and are beyond the reach of individual problem-solving capabilities. Collective and artificial intelligence (CI + AI) working together can address the complex challenges of urban health. Role of AI, particularly in certain fields like radiology, imaging, neurology, electronic health records, telemedicine, cardiovascular diseases is already established. AI helps the healthcare professionals in understanding day-to-day needs and patterns of the patients, thereby leading to better support and guidance for maintenance of their health. In a developing country like India, by recognising AI's potential to transform economies, NITI Aayog (National Institution for Transforming India) has initiated establishment of National Program on AI. As AI is affecting and having impact on various health sectors, its role in achievement of SDGs needs to be discussed in Indian Urban Health context. As per evidence available AI could have a positive impact on 128 targets but could be inhibiting for 58 targets. Although AI will benefit the health sector in a developing country like India and rapid urbanisation will demand for incorporation of AI system in its health care to meet the needs of growing population, the AI system in health will have to be provider and acceptor friendly and the data will have to be protected.

**Keywords:** Artificial intelligence; Urban health; Sustainable development goals; AI; AI in healthcare

# Urban Health and e- Governance in India

*Rhyddhi Chakraborty<sup>1</sup>, Samik Ghosh<sup>2</sup>*

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<sup>2</sup>Samik Ghosh - Manager for Evidence Measurement Evaluation, Children's Investment Fund Foundation (CIFF, UK), India Office.

**Abstract :** India is witnessing rapid urbanisation with the projection of 300 million by 2050. The rapid urbanisation is impacting urban health, influencing the disease pattern and transmission in the country. By coping with these changing dynamics, India attempts to ensure the right to health to all, to deliver Universal Health Care (UHC) by capturing data through digitalised health care system. In many places, healthcare service is jointly delivered through public-private partnership where patients' data are collected, shared, used through use of digital technology. This digitalization, for standardizing health care delivery and predictive analysis, is generating “Big Data” (electronic data or e-data). With growing population, rapid urbanization, and changing disease dynamics, e-data won't just be bigger but will necessitate an electronic data governance. However, electronic data governance, at micro and macro level, has not been very transparent and found to be at its nascent stage in India. Considering this fact and using the example of digitalized Tuberculosis (TB) care, the paper explores the ethical concerns in the e-governance of such electronic TB data and puts forward some policy recommendations for e-health governance of Big urban health data in India. The paper concludes with the suggestion that India needs to focus more on urban health changes if not equally along with rural health. For this, the digitalization of healthcare system should look for intersectoral collaboration with more ethical insights to data governance. Governance of digital data, without ethical insights, might not be able to ensure and enable the right to health to all.

**Keywords:** Big-data; Ethical governance; TB care; Urbanisation; Urban health

# Air Pollution in Urban Areas and its Linkage with Health: A Case Study of Delhi

*Veenu Joon<sup>1</sup>, Saranya P<sup>2</sup>*

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<sup>2</sup> Saranya P - Scientist D/ Joint Director at Ministry of Environment, Forest Climate Change, New Delhi, India.

**Abstract :** Air pollution in big cities make headlines. India is home to 11 out of 20 most populated cities of the world . Of late; the air pollution status in India has undergone many changes in terms of pollutants level and their mitigation measures. Air pollution is responsible for many health issues in the urban areas. This chapter provides an evidence-based insight into the status of air pollution in India and its effects on health and control measures instituted. Among all the pollutants, the problem of particulate matter (PM10) is critical. Delhi exceeded the maximum PM10 limit by almost 10-times during 2011-2015. Vehicular emissions and industrial activities were found to be associated with air pollution in urban areas. The air pollutants so generated can cause serious health problems, including asthma, bronchitis, pneumonia, decreased resistance to respiratory infections, and premature death. All-natural-cause of mortality and morbidity increased with increased air pollution. Urban environments typically have a diverse range of co-existing sources and it is important to understand their locations and emission intensity in order to develop abatement measures and for predictive/forecasting purposes. Important sources for Delhi include brick kilns fueled by raw wood, agricultural waste or poor quality coal, roadside burning of waste, burning of municipal solid waste at landfills and construction activities. In light of the adverse impacts, the issue of air quality of has become a major concern. Amid growing concerns pertaining to rising air pollution, various initiatives to address the issue. However, more mitigation/precautious measures are still needed to reduce the air pollution.

**Keywords:** Social determinants of health; Sociology; Urban health; Health impact assessment; Health equity

# Emergence of Health Tourism in India in an Urban Context

*Verina D'Souza<sup>1</sup>, Prakash Pinto<sup>2</sup>*

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**Abstract :** Over the last few decades, India has made significant advancements in the way healthcare is delivered in the country. The healthcare sector has become more attractive to foreign patients thus making Health Tourism a game changer for the Indian travel industry. Medical and Wellness Tourism are two booming niche markets all the countries cling on to post COVID-19. Health tourism is in a nascent stage in India. The study unfolds the development of health tourism in different states of India. It brings to the forefront the underlying reasons for international patients to pursue health tourism in India. It elucidates the two pillars of health tourism: Medical and Wellness. It explores the potential of what health tourism holds for the country and the key challenges that inhibit India from reflecting in the league of world class destinations. The players of the Indian healthcare industry need to shift it's focus on developing unique quality service and providing a satisfying experience to the health tourists. The paper outlines the future prospects of Indian urban healthcare evolving as niche centres of health tourism that would enable India to emerge as a global health tourism destination. The study aims at bridging the gaps in health tourism and calls upon multiple players in this industry to devise attractive strategies to emerge India as an all-time destination for health tourists.

**Keywords :** Health tourism; Health and wellness; AYUSH; Foreign tourist; Alternative medicine

# Impact of Urban Environment on Mental Health

*Demi Miriam<sup>1</sup>*

## **About the author:**

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Mangalore, Karnataka, India

**Abstract :** While urban areas provide more prospects for income, employment, and personal freedom, they also face challenges in providing urban services. Poor mental health is one of the detrimental consequences of accumulating such vulnerabilities. Several risk factors have been discovered in the urban environment that are linked to a rise in mental disorders. The relevance of mental disorders for public health has been highlighted due to its high contribution to global burden of diseases, including death and disability. Rapid urbanization globally has heavily influenced changing health dynamics. It not only promotes greater tolerance, a higher quality of life, and sociocultural stimulation; but, also promotes increasing social tensions, inter - ethnic competition, and cultural disputes, all of which have mental health implications. The public health framework at the end of the narrative provides a foundation for continuing to explore and identify the implications and impacts of urban mental health and preventing suicides through primary preventive programmes, policy initiatives, and advocacy. It also aims to improve mental health and safety in urban cities by addressing underlying risk factors that raise the possibility of being a victim or perpetrator of violence. Its goal is to arrange mental health and psychological assistance through a public health approach, so that people can get help for all of their mental health problems. Finally, it emphasises the importance of continuing to develop early intervention programmes that focus on the catastrophic effects of unemployment, socioeconomic displacement, and housing disruption, including homelessness in urban areas.

**Keywords:** Mental health; Urban environment; Psychological stressors; Urban health; Public health

# Safe Drinking Water and Sanitation Challenges in Urban Slums

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**Abstract :** Urbanization is a process in which an increasing proportion of population live in cities and suburbs. The urban population in India is growing rapidly at the rate of 4-5% per year. Rapid and uncontrolled urbanization is intimately connected with migration of people from suburban and rural areas, which puts pressure on already strained infrastructure of the city leading to creation of urban slums. This unplanned urbanization has a visible impact on the quality of life of slum dwellers. Existing infrastructure and services are hard-pressed to cater to this growing population. The uncontrolled urban growth puts strain on resources such as water supplies, sanitation, availability of safe housing and health care services creating a gap between community needs and existing public health services. In urban areas, high inequities in socio-economic and living conditions are observed, which are also reflected in health status of urban poor. To address the problems of water and sanitation, it was added to the national agenda during the country's first five year plan itself, though the first National Water Supply Programme was launched in 1954. However, the sanitation programme picked up momentum in eighties, when the Central Rural Sanitation Programme was launched in 1986 which was expanded to cover solid and liquid waste management under Total Sanitation Campaign in the year 1999 which was converted to Nirmal Bharat Abhiyan in 2012. Recently, Government of India launched Swachh Bharat Mission to accelerate efforts to achieve universal sanitation coverage, improve cleanliness and eliminating open defecation. National health policies and plans need to make a special provision for improving the health of the urban poor. Inter-sectoral coordination among various sectors need to be strengthened to provide affordable housing, safe drinking water and sanitation facilities to the urban poor so as to develop healthy cities in the country.

**Keywords:** Urbanization; Water and Sanitation; Urban slums; Disparity; Swachh Bharat Mission

## **Part 2**

# Changing Dynamics For Urban Global Health

# Implications of the COVID-19 Pandemic for Urban Health

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**Abstract :** Urbanization has led to approximately 55% of the global population living in urban areas, and this is expected to increase by 25% by the year 2050. Currently, a third of the global urban population live in informal settings, predisposing many city dwellers to health inequities and poor health outcomes. These inequities not only affect vulnerable population but actually put entire cities at risk, especially in the context of widespread infectious diseases like the COVID-19 pandemic. Greater understanding of the factors that impact transmission of the SARS-CoV-2 virus in cities offers an opportunity to recognise and address deficits in urban health planning, identify context-appropriate strategies and policies, and minimise the impacts of future pandemics on urban population and urban health. The COVID-19 pandemic was highly prevalent in many urban areas across the globe, with many factors interacting to promote transmission of the virus. The virus itself was highly contagious, being spread by droplet and aerosolised modes, and mutating in time to produce more transmissible variants, which were a risk in highly, densely populated urban areas. Individual biological, behavioural, and socio-economic characteristics also led to certain groups of people being more vulnerable to infection, morbidity, and mortality associated with COVID-19. Finally, environmental factors like population density, transport networks, housing, access to basic amenities, and access to healthcare, also influence the transmission of SARS-CoV-2 and health outcomes among people who contract the virus. Focused attention to several of these factors could significantly inform strategies to address epidemics and pandemics in urban areas, and improve related health outcomes.

**Keywords:** Urban health; COVID-19; Public health response; Urbanization; Pandemic

# The Construction of Social Capital for a Sustainable Urban Future

*Chiara Menchise*<sup>1</sup>

## About the author:

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**Abstract :** Throughout the last century, cities have faced a surge of challenges relative to the progressive industrialization, climate change, loss of biodiversity, and worsening of living conditions. Luckily the need for solutions rose, leading international leaders to look for different approaches on how to make development more sustainable. Still, the lack of political coordination among the national and regional levels has oftentimes left a void, where the best intentions fell into inaction. This chapter first investigates how the rise of industrialization changed the shape of the Western European cities and led to a severe detachment from the natural environment; secondly, it deals with bottom-up/informal European practices, that arose in a political void, have inaugurated creative strategies to make a city more sustainable. Since the Treaty of Amsterdam, sustainable development has become one of the primary goals of the European Union. However, the absence of coordinated leadership at different levels has enabled the emergence of grassroots movements that currently have taken the floor of the global debate on sustainability. Thanks to the strong awareness individuals acquire through direct interventions on the city's visible and invisible environment, they open a reconciliation with space - both built and natural- and recapture an antique perception of the city, as a 'body'. Urban planning has borrowed a part of its terminology from the public health sector (the word 'body' may refer to the entirety of a city, 'disembowelment' to the opening of enormous boulevards), this loan is based on the underlying understanding that a city is especially made of the people who live in it, by the bodies of its inhabitants, that when in peril, are a threat to the city's dynamic itself. Those forms of mobilizations have provided new paths for developing integrated climate strategies, inspiring planners and towards a more human and sensitive urban development.

**Keywords:** Urban planning; Capitalism; Grassroot movements; Sustainability; European cities.

# Elderly Services for Urban Population in Iran

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**Abstract :** Today, issues of the elderly population and accurate policy making about them have become a common global concern. In Iran, the baby boom of the 1980s (1360s Hijri Shamsi), rising life expectancy, and a sharp decline in fertility drive the nation's population to aging faster than other countries. On the other hand, the growth rate of the elderly population in developed countries has occurred over 100 to 200 years, while in developing countries such as Iran, this path will occur over 30 to 40 years, and this high speed makes planning, policy-making, and resource allocating more difficult. Given the growing trend of population aging in Iran, special attention for policy making and planning for the well-being of the elderly is required. This rapidly growing population, most of whom live in urban communities, need special services to be able to live as an independent individual in society. In terms of urbanization in 2016, about 72% of the elderly population in Iran were urban residents and 28% of them were rural residents. This chapter discusses the rate of elderly population, urban/rural mix of the elderly population, types and coverage of elderly services for urban communities, stewardship and service providers in Iran urban communities. It also gives an insight into expenditures of the services and financial status of elderly urban communities and compliance with Age-friendly Cities' standards in Iran. What all members of the Age-friendly Cities have in common is the desire and commitment to promote healthy, active ageing and a good quality of life for their older residents. At the end of the chapter the main challenges and problems of elderly services in Iran are discussed. And probable solutions are offered aiming to improve urban services for the elderly.

**Keywords:** Elderly services; Senior services; Urban population; Age-friendly cities; Iran

# Childhood Lead Exposure and Poisoning in the United States – A Rights Based Approach

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**Abstract :** Lead exposure is global environmental health and justice crisis that disproportionately affects children of color living in low-income urban communities. In the United States, over 1 million children live with elevated blood lead levels, but no safe level exists. Lead is a potent neurotoxin that has devastating neurological effects on the health of children, ranging from poor cognitive outcomes, loss of IQ points to seizures, blindness, and death. Today, lead can be found virtually anywhere in the environment, and few treatment options for lead exposure and poisoning exist. For centuries lead's toxic effects have been known, yet far too little has been done to remove lead from the environment. In urban communities within the United States, lead exposure creates and worsens health inequities, often causing irreversible health outcomes on already vulnerable population. Locally and globally, all children have the human right to health, a healthy living environment, and the continuous improvement of living conditions. Significant concern as to whether lead exposure and poisoning in urban communities in the United States violates numerous human rights is warranted. A rights-based approach is essential to explore if and how violations are occurring, whose rights are being violated, who violated them, who is accountable, and to enforce accountability.

**Keywords:** Lead; Children; Environment; Urban; Neurologic effects

# Hospital Approaches to Disaster Preparedness

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**Abstract :** Preparing hospitals for disasters and emergencies is a critical issue in most urban societies in the world. This is because hospitals have an additional role in disasters and emergencies besides their routine day-to-day responsibilities, regardless of the patients' volume. Hiring a full-time emergency preparedness coordinator is not cost-effective for hospitals since they have no direct revenue. It adds to a fixed but necessary cost with no justification for funding to the added services. It also increases the workload and adds responsibilities onto an existing full-time employee who has no knowledge of emergency management. This chapter contains some fundamental principles that health and hospital authorities should consider in disasters preparedness.

**Keywords:** Preparedness; Disasters; Hospitals; Emergency; Hazards

# Beyond the COVID-19 Crisis and Global Health Diplomacy

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**Abstract :** The World Health Organization (WHO) has declared that the COVID-19 pandemic has caused unprecedented disruption to the global health system. The existing health system's keeping pace with the pandemic has become a serious concern across the globe. Countries such as China, Brazil, India, Italy, and the United States have lost their potential control due to the pandemic. The COVID-19 pandemic has posed great challenges to international and humanitarian organizations. However, innovations in development and the humanitarian responses to the pandemic have led to focus on advancements in the existing aid approaches and to new developments. Health has become a part of diplomatic engagement and a priority. At present, health issues have gained attention in global policy discussions. The existing global health challenges have necessitated the intersection of global health, foreign policies, and diplomacy to address the health disparities, and this progress has resulted in global health diplomacy (GHD). This study aims to understand the dynamics and interconnectivity of health, society, economy, and development in the GHD context. Also to know the health determinants and interdisciplinary approaches in the GHD, and to examine the COVID-19 pandemic and its impact on health and development. It aims to discuss strategies for rebuilding the healthcare system through GHD and the policy directions/decisions based on evidence to save lives and protect livelihoods and to analyze the multidimensional approach and multi-diplomatic mechanisms during the crisis. Knowing the role of diplomacy in health is vital as health becomes an ever more critical element in foreign and security policies, development strategies, and trade agreements.

**Keywords:** Global health diplomacy; GHD; Global health; Urban public health; COVID-19

# Road Traffic Accidents in Iran

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**Abstract :** Road Traffic Accidents (RTAs) around the world are a tragedy. RTAs are a serious public health problem worldwide. It refers to unexpected and unforeseen events or accidents caused by at least one motor vehicle. Road traffic accidents is the eighth leading cause of death among all age groups, according to the World Health Organization report. Iran is one of the countries with the highest number of accidents and deaths due to traffic accidents. RTAs also have a significant impact on affected families, health care services, and national economies. The economic burden of RTI in Iran for the first time in 2001 was estimated at 6170.6 billion Rials. The economic consequences of RTA in Iran is estimated to be between US \$ 7 billion and US \$ 40 billion annually (2-4% of Iran's GDP). In recent years, many initiatives have been taken to reduce RTI in Iran and many other LMICs. According to the World Health Organization, the trend of deaths from road traffic accidents in Iran has been declining from 2007 to 2017, from 32 to about 20 per 100,000. In this chapter of the book, the author shares some of the important facts and statistics about road accidents in Iran. The first section discusses road traffic accidents and their associated facts. The second section examines the major causes of road traffic accidents in Iran. The third section discusses the effects of road traffic accidents such as the loss of life and disability and their economic burden. Finally, section four will discuss Iran's plans and policies to reduce road traffic accidents, as well as solutions to reduce these accidents. The information in this chapter of the book will be useful to anyone who wants to understand the severity and status of road traffic accidents in Iran.

**Keywords:** Road traffic injuries; Economic cost; Road traffic accidents; Accidents; Iran.

# Drug Abuse in South Asia: A Growing Urban Regional Concern

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**Abstract :** Substance abuse, though a growing menace in the 21st century, has plagued the human society since time immemorial. It not only leads to multiple health problems in the user but poses mental health issues in the family members. It is also a widely known fact that large-scale drug dealers evade the law with the support of people in power and others with influence. Resources of a country are siphoned through drug use and also considerable expenditure is incurred by governments all over the world for measures adopted for its control and management. South Asia is not only a hub of illicit drug users but also an industrial estate for drugs manufacturing and trafficking. Harvesting opium yielding crops is a common practice in Myanmar and Afghanistan; laboratories refining it into heroin are rampant in South East Asia. Apart from opioid group of drugs other substances like amphetamines, metamphetamines and also the more potent crystalline form of metamphetamines are widely produced in this region and supplied all over Asia and Australia and also trafficked to Europe through maritime and other routes. Infectious diseases associated with IV drug use is also on the rise in this region. A concerted effort encompassing medical management, rehabilitation services, social awareness, able policing and a strong political intent will be required to address this issue.

**Keywords:** Substance abuse; Drug addiction; Psychoactive substances; Drug dependence; Golden triangle

# Urban Health for the Aging Population in the United States

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**Abstract :** Seniors comprise a diverse age group, with large variability in ability, function, income, and past experiences. The United States (US) is a country which is rapidly aging and consists of specific elderly population that are vulnerable. While there are many health challenges faced by seniors (like deterioration of biological and mental health, decrease in visual acuity, and dementia) which are seen across the world, many issues are specific to the US. The physiological consequences of aging are exacerbated by the increase in life expectancy, lack of universal health care, and a lack of safety net in the US. These effects influence the large proportion of the country's aged living in poverty in distinct and harmful ways. This chapter highlights the policies and laws in place to protect the health and human rights of seniors in the US and summarizes gaps in this field ranging from programmatic areas to cultural barriers in the form of ageism and stigma. We describe healthy aging, the domains of healthy aging in an urban setting in the US, and ways to achieve healthy aging for all.

**Keywords:** USA; Aging; Stigma; Ageism; Healthy aging; Active aging

# Importance of Family Planning in Improving Lives and Health of Poor People in Urban Areas

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**Abstract :** By 2050, approximately 66% of the world's population will live in urban areas. Urbanization is occurring so rapidly in some parts of the world that cities are not able to keep up with increased demand for environmental, health, and educational services. As one of the least expensive, most cost-effective interventions with the most lasting impact on health, family planning is often overlooked as an essential strategy to improve urban health. Even though family planning services are less available in rural and remote parts of least developed countries, the poor who live in urban areas have more difficulty in accessing family planning services than their wealthier counterparts, for a variety of financial, social, and cultural reasons. Family planning can reduce unintended births. Due to high unmet need of contraception, number of women of reproductive age is rapidly increasing so role of family planning has come into picture to regulate fertility. Family planning prevents abortion, maternal deaths and averts the deaths of infants and children. Sexual and reproductive health, STD and HIV, are intricately linked. Family planning promotes women's empowerment and socioeconomic status, equity in access to family planning for the poor is a matter of health and human rights, satisfying the demand for family planning with modern methods can improve health and economic outcomes not only among urban poor but in general population too. With half of the world's residents now living in urban areas, improving the access of the poor to family planning services in urban areas should be a high priority.

**Keywords:** Family planning; Urban health; Unmet need of contraception; Maternal deaths; STD and HIV

# **Part 3**

## **COVID-19 Opinion**

# COVID19 – Response by Hospitals in Urban Cities

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**Abstract :** COVID-19 started off as a rich man's disease. With global transmissions affecting largely via air travel, the urban areas were probably the first to get hit. Almost 80% of the cases reported were from the urban areas. Given the Indian healthcare system as well, the larger portion of the hospital infrastructure is indeed concentrated in the cities. As the key healthcare and medical research bodies got into action, it was the city hospitals that initiated action to treatment. The gearing up was definitely not an easy task. Multifarious things had to be looked into. Identification of the possible COVID-19 affected patients, unaware or purposeful slippage, symptomatic or asymptomatic, as people drowned in through the clinic and hospital corridors became one of the biggest challenges. The hospitals had to look for solutions for not only infrastructure, treatment plan, medication, equipment etc., but also the insufferable, blatant 'adamant-cy' of people refusing to, purposefully or ignorantly, acknowledge the dangers of the disease – to themselves, their nears and dearones, friends, colleagues, acquaintances and the healthcare workers who for no fault of theirs were exposed to the virus as well as the idiosyncrasies of the human brain. Being at the forefront of the pandemic, managing a hospital, relating the tale of the hospitals and their response to this raging pandemic, not just for a story telling purpose, but to look into the required preparedness that can and needs to be taken up so as to be able to better deal with such occurrences in the future.

**Keywords:** Patient behaviour; Team management; Health infrastructure; Supply preparedness; Safety protocols

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## EDITORS



*For the first time in human history there are more people who live in cities than elsewhere. This book echoes the human possibility of urbanism seen through a healthcare lens. The essays in here will provide in-depth insight into different colours that will shape the urban health agenda around India and across global cities. Urban determinants of health which affects sectoral population and thematic areas are covered in this book. Critical insights fundamental to urban health engagement emerge through the book – essential for public health and public policy professionals from a wide range of disciplines and for all organizations directly and indirectly advancing conversations in this space.*

*Cities provide a wide range of opportunities for families to grow and for individuals to shine, however it comes with a price. Can this price be paid by all? Collections in this book will forge new relations between public health workers and policy makers, it will broaden the very horizon of why urban health will define our collective future, as it has started to influence our present !*

*"India is urbanizing rapidly, a change to our society and economy that is under-studied from the perspective of public health. This volume, which combines expert perspectives from leading academia, civil society and policy makers, sets the agenda for future research on urban health and will be a standard reference for years to come."*

**Prof. Irfan Nooruddin** Director of South Asia Centre - Atlantic Council, Washington, D.C. and Hamad bin Khalifa Al Thani Professor of Indian Politics at Georgetown University

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