EDITORIAL

Climate Change: No Room For Complacency

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Human societies have been adapting to the challenges posed by climate since ages. Climate is a critical factor in deciding where the people reside, how they make a living, their eating patterns and even how they spend their leisure time. Climate and human life are intertwined as climate defines health concerns like effects of excess heat and cold, scarcity of drinking water during drought, air quality impacts besides risk of waterborne/vector borne diseases depending on conditions favoring their spread.

From the United Nations World Meteorological Organizations annual Green house Gas Bulletin to the Lancet Countdown 2018 on Health and climate change, all reports have said that climate change is the world, s biggest crisis and India will be one of the worst hit countries. The impacts of existing climate change is placed in stark contrast by recent analysis from the Intergovernmental panel on climate change, focusing on extreme weather events and other unusual phenomenon witnessed across the planet. The nature and scale of response to the climate change will shape the health profile of nations for times to come.

The global climate is changing faster than any point in the history of modern civilization and consequences of warming planet are extensive affecting the economy, ecology and health. Research on the health risks from climate change has grown substantially during last few decades and evidence suggests that global health gains achieved over last five decades are being undermined by climate change (1). The impacts experienced differ with in segments of the population and between geographic locations depending on social, biological and economic vulnerabilities and type of climate hazard.

Trends in the impact of climate change exposures and vulnerabilities show unacceptably high risk for health now and in the future. Small changes in temperature and rainfall can boost transmission of dengue fever and other infectious diseases that are spread through water and mosquitoes. Transmission of vector borne disease is jointly affected by climatic conditions, population movement, forest clearance and land use patterns, biodiversity losses (e.g. natural predators of mosquitoes), freshwater surface configurations and human population density. There is growing evidence that climate change is altering the distribution of some disease in some cases causing epidemics or making diseases spread with in their natural range e.g. Zika virus in South America and India or Schmallenberg disease in European livestock.

Climate change is expected to affect air quality through

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several pathways including production and allergencity of allergens and increased regional concentrations of ozone, fine particles and dust. WHO estimates that 97% of major cities in low and middle income countries don't meet safe air quality guidelines. As per WHO estimates, 7 million premature deaths annually are attributed to the consequences of air pollution (2) ; rates of obesity and chronic diseases are rising in nearly all regions of the world and about 5.3 million premature deaths each year are attributed to sedentary lifestyles supported by fossil fuel intensive transport (3) . Declining air quality correlates with increasing risk of heart disease, lung cancer and respiratory disorders as asthma and COPD.

Climate changes will lead to increase in occupational hazards like heat stroke especially in farmers and construction workers. The resultant effect could be shift of labour work to dawn and dusk when more disease carrying insects are out. Mosquito borne dengue fever has increased 30 fold in the past 50 years. Trauma from floods, droughts and heat waves can lead to mental health issues like anxiety, depression and suicide. Hotter days, more rain and high humidity will produce more ticks with spread of infectious diseases like Lyme disease. The research indicates that heat waves can affect cognitive abilities (4), rainfall extremes could increase sewage contamination in cities (5) and wildfires have substantial adverse consequences for human health (6).

Paradoxically, the health sector itself is making a significant contribution to climate change. Through the products and technology it deploys, the energy and resources it consumes, the waste it generates and the building it constructs and operates, the health sector is a significant source of carbon emissions around the world, and therefore an unintentional contributor to climate change trends that undermine public health. Another outfall of extreme weather could be power outages with resultant crippling of hospital and transportation system.

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