Climate change, extreme weather events and chronic diseases – how do we adapt as a society?

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Between 1950 and 2023, global life expectancy at birth increased from 45 years to 73 years. However, this impressive increase in life expectancy has not all been healthy life. Today, people live longer, but often with chronic conditions such as cardiovascular disease, cancer, diabetes, to name few.

Most recent IPCC report suggests that the frequency, intensity, and duration of extreme weather events are increasing and this trend will continue into the foreseeable future. Although these increases are a global phenomenon, the health impacts vary substantially across geographic regions owing to the capacity of the local community to adapt to these threats, sociodemographic factors, healthcare coverage and underlying prevalence of chronic diseases that account for over 64% of global burden of disease today. Climate change fueled increases in natural disasters and extreme weather events, such as hurricanes, tornadoes, droughts, floods, wildfires and extreme precipitation can disproportionately impact individuals living with chronic condition. As extreme whether events continue to rise despite mitigation efforts, there is an urgent need to enhance resilience among this highly vulnerable population. Using local, national and global epidemiological data, this presentation will highlight climate change related differential health burden experienced by individuals living with chronic diseases. Building on these findings, the presentation will argue for AI based public health early warning system with sub-seasonal to seasonal lead time to enhance public health adaptation to climate change.

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