

Intellectual climate of inspiring concepts

Annie Philip



Professor Michael Edwin of Notre Dame University, U.S. —Photo: Special Arrangement

: There is an immediate need for an inter-disciplinary approach to study the impact of climate change on health, according to Dr. Edwin Michael, Professor, Eck Institute for Global Health, University of Notre Dame, USA.

Conference

The professor was in Puducherry to address the one-day conference on 'Climate Change and Health' on Friday organised by the Sri Balaji Vidyapeeth at the Mahatma Gandhi Medical College and Research Institute.

An epidemiologist, he spoke about using mathematical models which map socio-economic data to assess the potential effects of climate change on vector-borne disease transmission, and used malaria in Tanzania as a case study.

“Models have so far been concentrating on intrinsic biological factors alone, without taking into account socio-economic factors. There is a need to look at evidence more clearly, taking into account factors like development,” he said. He gave the example of how increased urbanisation led to lesser surface area for breeding and thus fewer instances of malaria. On the other hand, an increased urbanisation could also lead to the occurrence of a different variant of infection, he said. He also linked development growth in India to falling numbers of occurrence of malaria, highlighting better access to healthcare and decreased vulnerability because of use of mosquito coils and nets.

A growth in GDP led to better nutritional rate, improving immunity and leading to an improved recovery rate as well, in the case of malaria.

Climate change

“Climate change does play a role in health but so does development. Models to study diseases must

include all these factors. The question for policy makers is to decide where to put the money, whether it is in development or medical interventions,” he said.

Dr. Michael bemoaned the lack of integrative research in India. “Big science means incredible integration. This is encouraged in the US. India has among the best mathematicians and statisticians, and must look at how to use data generated by them in public healthcare,” he said.

On instances of climate change in Puducherry, Dr. K.V. Devi Prasad, Head, Department of Ecology and Environmental Sciences, Pondicherry University, said that number of rainy days in a year had fallen from 35 days to 28 or 29 days.

“With climate change, the demographics of disease might change. Thus, we see the occurrence of malaria closer to the Himalayas. Larger animals would be slower to adapt, changing the relationship between predator and prey.

Climate change itself is not uniform. In some places, there may even be benefits from it,” he said. Climate change would also bring about displacement of people and newer health challenges with it, said Dr. Prasad. “We can mitigate the effects of climate change because we know what is in store, and therefore must adapt. The medical profession has to adapt by creating infrastructure for the changed situation,” he said.