


Editorial

Present and Future Impacts of Climate Change on Human Health in Sub-Saharan Africa

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The impacts of climate change on human health and wellbeing in sub-Saharan Africa are projected to increase in the near future and are of considerable concern. There is a paucity of information on this topic relating to sub-Saharan Africa, so this collection of four research papers and one study protocol covering a variety of relevant aspects is of particular significance.

Rother et al. [1] considered perceptions of occupational exposure to the sun and high temperatures in forestry workers in South Africa who clear alien invasive plants from waterways to ensure free-flowing water in areas that are drought-prone. Using qualitative measures, including artwork and open-ended questionnaires, different topics related to environmental risks were evaluated, including the type of clothing worn to protect against pesticide poisoning and prevent overexposure to the sun. The workers identified several gaps and opportunities to improve their working conditions, such as beginning the working day very early in the morning when ambient temperatures and solar ultraviolet radiation (UVR) levels are relatively low.

Two research articles considered the health impacts of exposure to solar UVR which is the major environmental risk factor for skin cancer. The levels of solar UVR can be affected by shifts in global weather, such as temperature, rainfall, and air quality. These changes, in turn, may modify human behaviour regarding time spent outside. Wright et al. [2] reviewed the evidence on the incidence of skin cancer in relation to climate change in South Africa. Gaps in country-level research for environmental risks and skin cancer impacts were noted, and behavioural recommendations were provided to ensure safe sun exposure practices to reduce the risk of skin cancer. Cadet et al. [3] presented 10-year climatology data for solar UVR at two sites—one in Reunion Island, France, and the second in Cape Town, South Africa. In addition, case studies were undertaken to assess personal solar UVR exposure of people walking along popular trails in both locations. Using a handheld instrument, solar UVR levels of the hikers were compared in relation to altitude, cloud cover, and sun exposure patterns.

The intensity and frequency of rainfall are projected to alter as the climate changes. Rainfall is associated with the risk of diarrhoeal disease, recognised as a current cause of death for young children in sub-Saharan Africa. Using a unique analytical method, Ikeda et al. [4] investigated the climatic effects of temperature and rainfall on hospital admissions due to diarrhoeal disease in Limpopo province, South Africa. As reported in other studies, the number of admissions increased during conditions that were either wetter or drier than normal. This was thought to be due to household water contamination brought about by an inconsistent water supply provided by the government. Thus, despite altered and inconsistent weather conditions, adequate, uninterrupted water provision to protect against diarrhoeal diseases is required.

The final article [5] presented a review protocol for studying the direct and indirect impacts of extreme weather events on the mental health of children and adolescents in sub-Saharan Africa. The objective was to create protective adaptation strategies and promote resilience among young people.

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