

How climate change will hit healthcare sector – IOL 18 October 2019

Serious thought needs to be given to how climate change will impact health and universal health coverage. Picture: Jennifer Bruce

Johannesburg - South Africa's primary healthcare system needs to be "robust, resilient, of high quality and accessible" if the country is going to brave the storm of climate change and the threats posed to human life from extreme weather events.

This is the call made by a team of researchers from the Wits Reproductive Health and HIV Institute and the SA Medical Research Council, who describe how climate change will present substantial challenges, particularly to vulnerable communities expected to benefit most from the National Health Insurance (NHI).

Their new paper, National Health Insurance and Climate Change: Planning for South Africa's future, was published in the latest issue of the South African Journal of Science.

Dr Caradee Wright, Professor Matthew Chersich and Professor Angela Mathee write how as the NHI is being initiated, "serious thought" needs to be given to how climate change is likely to impact health and universal health coverage to plan for and mitigate the likely effects as soon as possible.

"In South Africa we have witnessed a gripping drought in the Western Cape, devastating heavy rains, fires, flooding and strong winds caused by an upper-air cut-off low in October 2017 in Durban and regular heatwave and fire risk warnings in several provinces.

"One foremost cause of weather-related deaths is heat (leading to heatstroke), which is on the rise as towns and cities across SA shatter record all-time high temperatures year on year."

In January 2016, the North West Department of Health reported that 11 people, aged 22-58, died over a period of two days in the province from heatstroke, they note.

"Deaths among groups such as the elderly, those with chronic disease and infants rise during heatwaves. These deaths may not be directly attributed to "heat shock" but to the additional physiological stress associated with high heat."

While there is some uncertainty as to whether these heat events are linked to climate change, "the increase in heat levels generally, extreme weather events and current climate predictions for warming temperatures are strongly indicative that this is the case".

By the end of the 21st century climate change in the country is predicted to result in, on average, temperatures 4°C warmer than they are now.

"Summers may become longer and warmer. Some areas of the country are projected to get drier while other parts may experience unseasonal rainfall.

"Even though there is some uncertainty around such climate predictions, preparing and adapting for climate change impacts is imperative."

Climate change will exacerbate the already high burden of disease in the country and create new public health challenges. These include respiratory diseases (from exposure to pollen, mould, smoke and particulate urban air pollution), infectious diseases, disaster-related injury and deaths, and environmental contamination that affects food crops and water supplies.

The World Health Organisation (WHO) estimates that 2500000 additional deaths will occur globally each year from the direct and indirect climate change impacts. The authors note how there have been environmental successes, with 84% of households connected to electricity by 2017 and 90% of South Africans having access to piped water in the same year.

“However, many people still live in unhealthy living conditions while the public health sector struggles from problems including insufficient funding and inadequate staffing.

“While access to primary healthcare has reportedly increased in recent decades, especially in rural areas, quality of care has not always kept pace.”

SA, too, faces a quadruple burden of disease and a mix of health system challenges.

“These conditions, in a context of widespread poverty and extreme inequality, limit the chances of optimal adaptation to climate change, but also of implementing an NHI scheme in a cost-effective manner.”

A fundamental goal of the NHI is to eliminate inequality in access to primary healthcare: 82 out of 100 South Africans make use of public healthcare “with limited resources, poor management and limited service delivery”.

The NHI is anticipated to be the catalyst behind an improvement in primary healthcare services and infrastructure across the country. “However, one of the WHO’s prerequisites for successful universal health coverage is an existing efficient healthcare system which is lacking in SA.”

While climate change health impacts are not mentioned in the White Paper on the NHI, this “should not suggest that healthcare professionals in SA are unaware of them”.

Potential direct climate change impacts on NHI and primary healthcare include extreme weather events on health service infrastructure such as heatwaves affecting the functionality of medical equipment, changes to cold chain requirement for transporting medicine and vaccines, thermal comfort in hospitals, and working conditions, productivity and staff well-being.

“Hotter conditions may constrain health workers’ outreach work, which often involves walking long distances for home visits. Flooding may interrupt water and power supplies, impede the ability of staff to get to work, affect the safety of staff and patients at health centres and also jeopardise access to, or integrity of, systems for maintaining patient records.”

As temperatures rise, the socio-economic effects of climate-related effects will ripple through communities and especially affect children and infants susceptible to heat impacts and child-headed households.

“High rainfall can lead to increased mould in people’s homes, especially in poorly built dwellings with limited ventilation, increasing the likelihood of respiratory diseases and exacerbating conditions such as asthma and tuberculosis (TB). Changes in precipitation can also impact food production and food security, with possible implications for malnutrition, already a concern in South Africa.”

If South Africans are to benefit from universal health coverage through NHI and simultaneously avoid health risks associated with climate change, then one fundamental NHI principle - prevention of disease - needs to be centre stage.

This includes a focus on preventing climate-sensitive conditions, cholera and dengue fever, and pre-empting infection outbreaks.

More stringent standards governing heat levels in occupational settings and promoting a set of interventions for outdoor workers are also key.

“Health promotion, preparedness and advocating health protective behaviours, for example, drinking water in hot conditions, must be among the high priorities.

“Public awareness campaigns are required for socially isolated and marginalised groups.”

A greater emphasis on prevention through behavioural change, especially in relation to environmental factors known to affect health, but also through vaccination, “could aim to reduce clinic and hospital visits during extreme weather events”.

Cities, where air pollution is already a concern, could experience worsening levels of air pollution when temperature rises, “which may lead to greater prevalence of asthma, hence healthcare facilities in cities may need to be well stocked with the appropriate medication”.

By making climate change an integral consideration in planning and development, the researchers state it is possible to deliver an NHI that contributes more effectively to reducing inequalities that are likely to stem from evolving environmental hazards to health associated with climate change.