

Climate change will affect healthcare and provision of services

 By Pamela Hellig

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In her article in *The New Yorker*, "Climate Change From A to Z: The stories we tell ourselves about the future", Elizabeth Kolbert writes of the Swedish scientist Svante Arrhenius, who, on the eve of the 20th century, constructed the world's first climate model.



Source: Supplied. Pamela Hellig, the consulting actuary at Insight Life Solutions.

According to his scarily accurate calculation, if the amount of carbon dioxide in the air were to double, global temperatures would rise between three and four degrees Celsius – pretty close to the 2.5 to four-degree increase predicted by the vastly more advanced climate models of today.

Kolbert writes: "Arrhenius thought that the future he had conjured would be delightful. 'Our descendants,' he predicted, would live happier lives 'under a warmer sky'...It's easy now to poke fun at Arrhenius for his sunniness. The doubling threshold could be reached within decades, and the results are apt to be disastrous.

"But who among us is any different? Here we all are, watching things fall apart. And yet, deep down, we don't believe it.

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The human brain – by means of a mechanism called denial – is good at protecting itself from realities that are uncomfortable or induce anxiety. The human body, however, is less well-equipped to defend itself from the reality of a hotter future; a reality which will come with diverse, far-reaching and unpleasant effects on our health.

And if the human body is not ready for the future, the health system will need to be.

While it's still too early to precisely predict the details of health impacts stemming from climate change, it's safe to assume that the public and private healthcare sectors will be bombarded with an influx of patients affected by acute and chronic climate-change events.

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The maladies that we can expect to see changes in, as identified by scientists, researchers and medical professionals, include:

- **Heat stress:** Increases in average temperatures and extreme events (such as heat waves) will induce heat stress, increase morbidity, and result in respiratory and cardiovascular diseases.
- **Vector-borne diseases:** Climate change and rising temperatures lead to the spread of zoonotic hosts and vectors (which include pests like mosquitos and ticks), increasing the human population exposed to vector-borne diseases like malaria and Lyme disease.
- **Food insecurity, hunger and malnutrition:** Climate change is expected to increase the frequency, duration and intensity of droughts and high temperatures and increased rainfall variability in many areas. This would affect food systems and lead to food insecurity.
- **The effects of extreme weather events:** Increases in extreme weather events lead to an increased risk of complaints such as respiratory and diarrhoeal diseases, injuries, malnutrition, burns and smoke inhalation.
- **Pollution-related concerns:** Climate change will influence the concentration of air pollutants by affecting weather patterns. Exposure to these pollutants can cause eye irritation, acute respiratory infection, chronic respiratory diseases and TB, and sometimes death.
- **Non-communicable diseases:** Climate change will impact non-communicable diseases, such as cardiovascular and respiratory diseases (asthma and bronchitis), directly (for example, by increasing temperatures and air pollution concentrations) and indirectly (for example, by adversely impacting agricultural yields resulting in food insecurity).

“ The heat stress and dehydration caused by higher temperatures will have serious implications for the productivity of workers in the agriculture and mining sectors. ”

- **Mental health:** Acute climate events such as high temperatures and heat waves have been associated with diminished mental capacity and increased hospital admissions for mental disorders, mood disorders, somatoform disorders (mental symptoms suggesting physical illness or injury), senility and psychological development disorders.
- **Occupational health:** The heat stress and dehydration caused by higher temperatures will have serious implications for the productivity of workers in the agriculture and mining sectors, for example.
- **Sexual and reproductive health:** Climate change disproportionately impacts women and girls by exacerbating existing gender inequalities, disrupting access to sexual and reproductive health care, and reducing their already limited economic

opportunities. Pregnant women are also at risk physically, facing increased risk of miscarriage, early labour, and pregnancy complications that could lead to illness, injury or death.

Healthcare providers have their work cut out for them in terms of pricing and providing for the expected increase in needs of their clients, members and patients. Some [researchers](#) have, however, suggested that climate change could and should serve as a catalyst for improving the healthcare system overall. forcing innovation, efficiency and proactivity if the system is to survive – cold comfort, perhaps, in an increasingly hotter world.

ABOUT PAMELA HELLIG

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