

# Climate change beliefs, perceptions of climate change–related health risk, and responses to heat-related risks among Hong Kong adults: abridged secondary publication

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## KEY MESSAGES

1. Psychological distance is an important contributor to low public engagement with climate change in Hong Kong.
2. A significant proportion of Hong Kong adults were sceptical about the personal and local relevance of climate change impacts, were optimistic about the ability of government, technology, and international organisations in controlling climate change, and perceived low personal responsibility for climate change mitigation.
3. Among Hong Kong adults, perceived heat-related health risk was low to moderate if heat waves occurred. Participants who were more sceptical and optimistic about climate change

and disengaged regarding personal responsibility in climate change mitigation perceived lower heat-related health risk.

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Anthropogenic climate change is a major threat to the ecosystems and human society. Much attention has been paid to consequential increases in atmospheric temperature. According to the Intergovernmental Panel on Climate Change, the world's average temperature is forecasted to increase 1.5°C before 2040.<sup>1</sup> There is evidence that climate change is harming human health, through heat stress, extreme weather events, and infectious diseases.<sup>2</sup> In particular, heat stress has become more common and caused loss of numerous human lives globally.<sup>3</sup> People older than 65 years have limited temperature adaptive capacity and hence are more vulnerable to the harmful health impact of heat stress.<sup>4</sup> Hong Kong with a rapidly ageing population is particularly at risk of extreme heat compounded by the heat-island effect. It is projected that southeast Asia, including Hong Kong, will experience a sharp surge in heat-related excess mortality by the end of the 21st century under likely high anthropogenic greenhouse gas emission scenarios.<sup>5</sup>

However, climate change is consistently viewed as a distant, highly uncertain, and personally irrelevant threat.<sup>6</sup> In Hong Kong, while acknowledgement of climate change was universal, psychological distance is an important contributor to low public engagement with climate change. Of 1705 Hong Kong adults who participated in our survey, although 92% were mostly or very convinced

that climate change was affecting the planet, only 58% believed that the impacts would be significant in Hong Kong in the next 5 years, and only around 40% were quite or very worried that they would be personally affected. Older adults were less worried about the impact of climate change and tended to believe that Hong Kong was not currently affected.

Climate change beliefs are multidimensional involving beliefs in its existence, anthropogenic causes, controllability, personal agency (personal responsibility in climate change mitigation), severity of impact, and personal relevance of the impact.<sup>7</sup> People can be classified into different groups based on the multifaced dimensions of climate change beliefs. For instance, in the United States, six groups that represented a continuum of climate change beliefs were identified: the alarmed, concerned, cautious, disengaged, doubtful, and dismissive,<sup>8</sup> with the latter three groups having lower engagement with climate change. In Hong Kong, our current study found that around one third of the 1705 participants had high confidence in government actions, technological solutions, and international cooperation to address climate change but were sceptical about the personal and local relevance of climate change impact (the optimistic and sceptical group). In addition, around one fourth of the participants perceived low personal responsibility or no ability to do something about climate change (the disengaged group). These two

groups also perceived lower impact of climate change on their personal health; a significant proportion of the adult population in Hong Kong are likely to have low engagement with climate-related policies and actions.

Climate beliefs are associated with perceptions of weather-related changes.<sup>2,5</sup> People who are more sceptical about climate change tend to downplay their subjective experience of abnormal heat.<sup>9,10</sup> Our study found that participants perceived low-to-moderate heat-related health risk if heat waves occurred in Hong Kong. Participants who were optimistic and sceptical about climate change and those who were more disengaged perceived lower heat-related health risk, which was associated with lower adoption of heat protection behaviours.

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