

# Issue At A Glance:

## Climate Change and Mental Health

*Climate change is one of the foremost factors challenging public health today. Although the physical health consequences of climate change are more obvious for many communities, the mental health impacts are often overlooked. This issue brief aims to shed a light on the impact that global climate change has on mental health.*

### Introduction

The effects of climate change on our planet have become increasingly clear with record extreme temperatures and natural disasters, and its well-known consequences to physical health include increases in vector-, water-, and food-borne diseases, acute and chronic respiratory conditions, and an increase in morbidity and mortality related to heat and extreme weather events.<sup>1</sup>

What is less often talked about is the toll that climate change can take on mental health. Climate change can affect mental health directly through trauma exposure or indirectly through its effects on physical health and community wellbeing.<sup>2</sup> Marginalized groups such as indigenous peoples, children, seniors, those with low socioeconomic status, and people with pre-existing health conditions are disproportionately affected by the negative health effects of climate change.<sup>1</sup>

As such, this issue brief aims to further explain the direct and indirect effects of climate change on mental health and highlight the urgent need for action to mitigate these effects.

### If You Need Assistance

If you need help for emotional distress, you can call the National Suicide Prevention Lifeline at 1-800-273-8255 for free at any hour.

If you prefer texting, text the Crisis Text Line at 741-741.



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## Direct Effects on Mental Health

Climate change has shown some correlation with changes in mental health, and this correlation seems to stem directly from the increase in temperature. An Australian study has suggested that there is a relationship between heat waves and increased rates of admission for mental disorders. In this study, the heat waves were associated with mood disorders, dementia, and anxiety related disorders.<sup>2</sup> It has also been reported that suicides are more common when there is an increase in temperature.<sup>5</sup>

As the climate continues to change and the earth continues to warm, climate related disasters such as hurricanes, floods, and wildfires have become more and more common, and there are psychological consequences to these climate related natural disasters. One of these consequences is a higher risk for victims of these natural disasters to develop post-traumatic stress disorder (PTSD) regarding that climate related disaster.<sup>6</sup> In these cases, the PTSD may be either immediate or have a delayed onset.<sup>7</sup>

In addition to PTSD, those that have been through these disasters are also more at risk of developing acute stress reaction, adjustment disorder and depression.<sup>8</sup> In farming communities, drought and resulting decrease in agricultural production from climate change have led to higher prevalence of suicide. For example, one Australian study found a statistically significant 15% increase in risk of suicide among 30-49 year old males living in rural areas when the drought index rose from the first quartile to the third quartile.<sup>9</sup>

## Glasgow Climate Pact of COP26

In November 2021, representatives from across the world met in Glasgow for the 26<sup>th</sup> United Nations Climate Change Conference of the Parties (COP26). At the conference, the delegates agreed to the Glasgow Climate Pact, which aims to keep the world on track to limit global warming by 1.5° C by having carbon emissions fall by 45% by 2030. The agreement included language that supports toning down the unfettered use of coal power, new rules for trading carbon credits among countries, a request for member nations to return in 2022 with more ambitious goals in order to cut down emissions, and an annual report to keep nations accountable.<sup>20</sup>

## Indirect Effects on Mental Health

The direct effects of climate change on mental health are further compounded by its indirect effects on mental health. These include the stress from changing economic situations due to climate change, stress from migration and acculturation, the psychological distress associated with physical illnesses, and the effect of adaptation and mitigation measures.

### Economic Stress

Societies with a heavy emphasis on agricultural production are likely to be economically affected by the change in climate. As sea levels rise, farmers may lose their land, and the heat from the climate getting warmer causes workers to be less productive.<sup>11</sup> This decrease in productivity can lead to a subsequent drop in socioeconomic status for the laborers, which in turn can result in negative mental health effects. Beyond those immediate problems that may arise for the workers, lower socioeconomic status for a community leads to lower social capital. When social capital is lost, it can lead to a reduction in overall wellbeing and can contribute to mental unwellness.<sup>8</sup>

### Migration Stress

As the change in the climate continues to progress, so will the need for more and more people to migrate. Between rising sea levels and increasing droughts and wildfires, many ecosystems will be permanently changed, and many people will be displaced.<sup>12</sup> When these

people migrate, they will often be faced with stress from acculturation. Trying to adapt to a new culture and ecosystem can be straining and can act as a starting point for psychiatric disorders.<sup>13</sup>

### Mental Strain and Physical Illness

Mental health and physical health are undoubtedly linked. We know that poor physical health can lead to poor mental health as a person's quality of life declines and vice versa.<sup>14</sup> As climate change is linked to increasing risk of developing physical illnesses such as respiratory or allergic diseases, the development of new physical disease or disorder may take a mental toll on the individual, contributing to mental unwellness.<sup>15</sup> Furthermore, if rising sea levels further limit the land that is habitable by humans, this may lead to food shortages in some places and subsequent malnutrition. Being deficient in essential nutrients can be linked to increased depression.<sup>16</sup>

### Adaptation and Mitigation Measures

Finally, adaptation to mitigation measures may result in a decline in mental health for some populations. For instance, as the temperature rises, many people may elect to stay indoors more to stay out of the heat. This may lead to social isolation by the individual and could lead to increased mental distress.<sup>19</sup>

## Conclusion

From PTSD due to acute climate-related natural disasters to economic and migration-related stress, climate change is affecting the mental health of individuals and communities around the world. To address this hot issue, more global, federal and state policies for mitigating the climate change crisis need to be implemented as soon as possible. Although countries have come together to sign agreements such as the Paris Agreement and the Glasgow Climate Pact, meaningful actions have lagged behind. It is time for actions to speak louder than words.

In addition to implementing policies to mitigate climate change, efforts to support those that are disproportionately affected by the climate crisis need to be increased. Most importantly, support for those dealing with mental unwellness needs to be widely available and accessible.

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## Did you know?

Even if the world's planned climate change mitigation efforts are successful, temperatures and sea levels are expected to keep rising into the 22<sup>nd</sup> century and beyond.<sup>3</sup>



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