

### 1. What made you all take a look at this?

We know a lot about the impacts of rising temperatures and climate change on deaths from infectious and non-communicable diseases. There is a dearth of evidence about how warm temperatures impact injuries. Such injury deaths include suicide, assault, transport accidents, drownings and falls. Since deaths from injuries are seasonal, it was a natural next step to investigate whether temperature might have a role in the variations in injury death rates both within a year and between equivalent times in different years.

### 2. This is only a 1.5 degree Celsius scenario, which is becoming increasingly hard to meet. What does this mean for a 2 degree scenario? Or, worse, an even warmer world?

The results also cover a 2°C scenario. A 2°C rise in temperatures are projected to result in around 2,100 additional deaths from injuries every year in the United States. With rises beyond 2°C, even more deaths from injuries would be projected.

### 3. Can you briefly break down the model used to figure out how many deaths would result from this scenario?

The statistical model we developed ~~analysed the association of monthly injury death rates with anomalous temperature. To do this, the model accounted for variations over space and time, while accounting for other drivers of variations in injuries other than anomalous temperatures.~~

**Commented [EM1]:** Association is jargon. ... analysed how much injury deaths in each state and month as temperature varies around the long term levels to which people are used to. This gave us an idea of how much unusual temperatures affect deaths

### 4. Why is it important that we discuss these potential realities?

It is important to highlight that the research has policy relevance for today's world; anomalous temperatures are occurring all the time, with varying warm anomalies evident throughout most years, especially recently.

These results could have an influence on policy for climate change and health now and into the future. For example, investing in better public transport can have a co-benefit of improving city connectivity, reducing air pollution from private transport, while also reducing the number of potential incidences of driving accidents in times of warmer temperatures.

The results are intended to inform and guide policy. Using potential realities can lead to increased recognition and pressure for decision makers to act.

### 5. What would this mean for people in especially hot climates, such as those below the equator?

The results are specifically for the United States. There may be similarities in how populations in different countries respond, but a full study of those countries needs to be done. The impact on hotter, generally poorer countries than the United States may indeed be greater than in the United States, due to reduced capacity to adapt.

### 6. What are the limitations or weaknesses in this analysis?

Ideally, we would further investigate how impacts vary by counties, as variation in risk may be due to local variations in socioeconomic and environmental factors, as well as infrastructure or health and social services available. Sub-causes of injuries within the broader categories we investigated may also have differences in responses to anomalously warm temperatures.

## 7. Anything else you want to add? Please feel free!

Beyond the now well-established links between warmer temperatures and health, there are other potentially important ones. These include a 'hidden burden' of mental health from rising temperatures, as highlighted by my results showing a positive association between suicides (especially in younger people), assault deaths and rising temperatures.

On a practical level in the community, this may mean that during warmer temperatures, someone who appears to be OK (at least physically) may not actually be. They may be suffering on the inside.

So, look out for and check in on each other, build a sense of community wherever you are! It could make a difference to someone's health and well-being, both inside and out.

**Commented [EM2]:** Don't overinterpret

I would just say no the story is in the paper unless you have something very very concrete to say.

**Commented [EM3]:** Hmmm? I wouldn't go that far