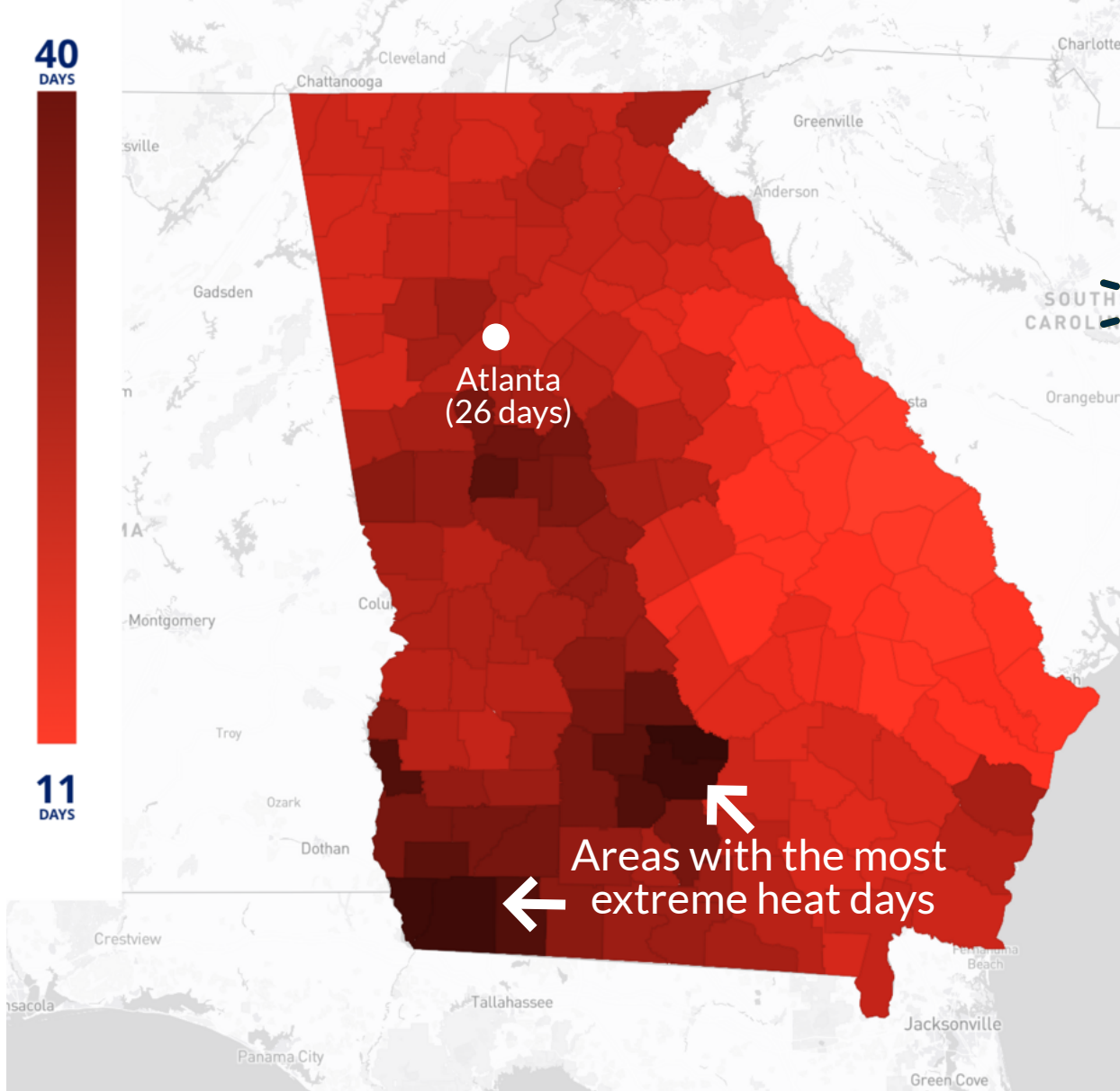


Exploring the Relationship Between Greenspace and Heat-Related Illness

Comparing satellite measures of greenspace, residents' actual perception and use of greenspace, and heat-related illness (HRI) in Metro Atlanta.

Why does this matter?

Research shows that **greenspace** (like trees, parks, and green roofs) **can help cool neighborhoods** by providing shade and lowering local temperatures. However, even though Atlanta is known as “The City in a Forest” because of its tree canopy, **more than half of residents still live in neighborhoods** that can be **over 8°F hotter** than nearby greener, less urban areas.



Number of extreme heat days in GA in 2023 (Source: CHART)

- As extreme weather events increase, **heatwaves** are **more common**.
- Heatwaves create **serious health risks** for older adults, children, people experiencing homelessness, and those with existing health conditions.
- High temperatures can lead to **dehydration, heat exhaustion, and even heatstroke** in these groups.

What did we want to know?

- How do people perceive and use the greenspace around them, and is their lived experience different from how satellites measure greenspace?
- How do greenspace patterns differ between patients hospitalized for heat-related illness (HRI) and those seen at the hospital the same day for other reasons?

What did we do?

In the summers of 2024 and 2025, the Climate and Health Actionable Research and Translation (CHART) Center recruited 47 participants who were admitted to the emergency department (ED) for HRI and another 47 who were seen at the hospital for other reasons.



- Perception and Use:**
We asked participants about how they perceive and use the greenspace around them.
- Objective greenspace:**
We calculated a "greenness" score for each participant's home address using satellite data.

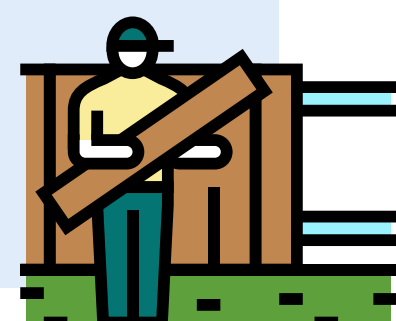
What did we find?

Time Spent Outside :

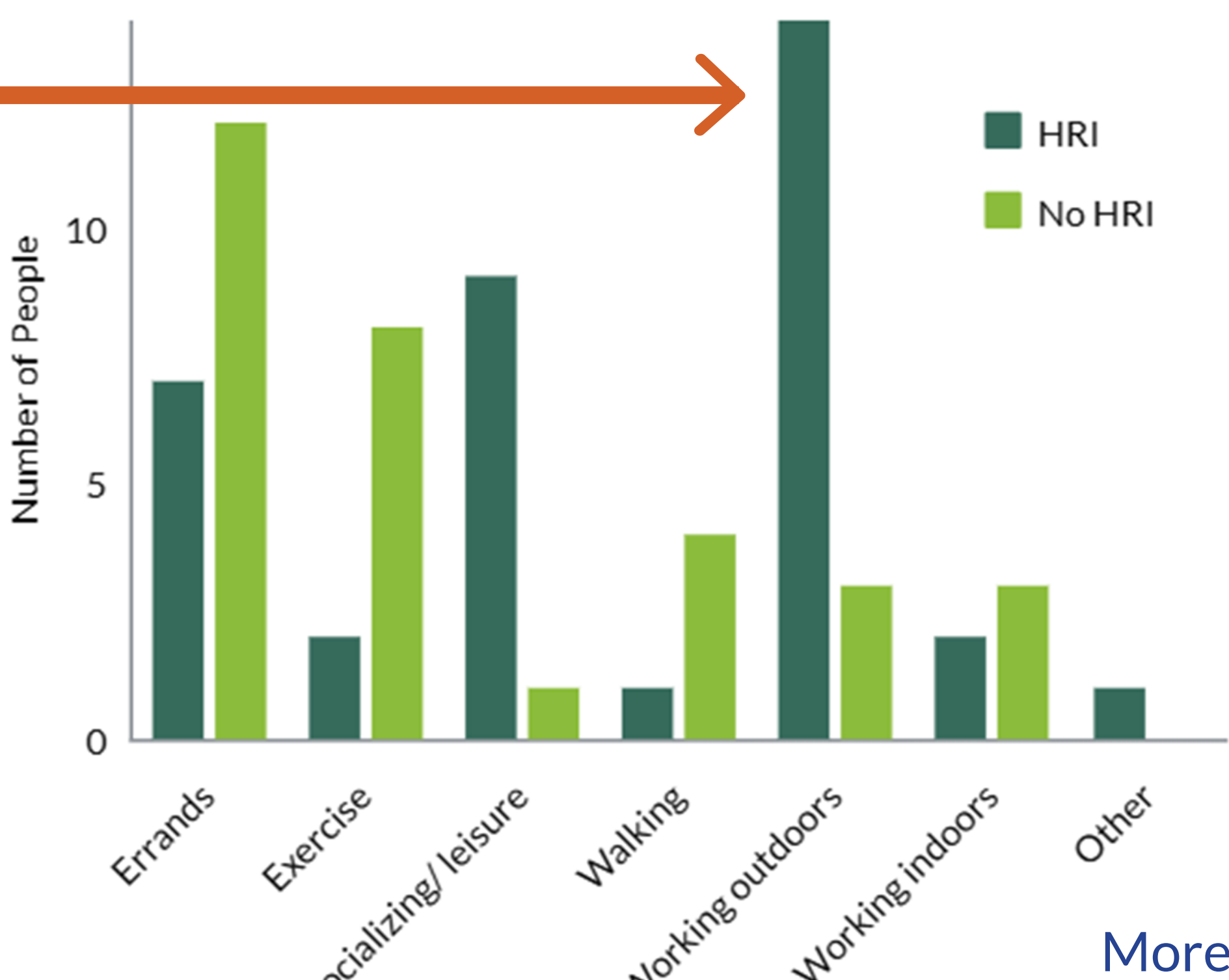
2x as many **people with an HRI did work outside** (i.e. yard work) in the 24 hours before being seen in the hospital (compared to those without an HRI).



More participants with HRI had jobs that were **at least partially outdoors** compared to those without HRI (among participants who worked for pay within the last year).



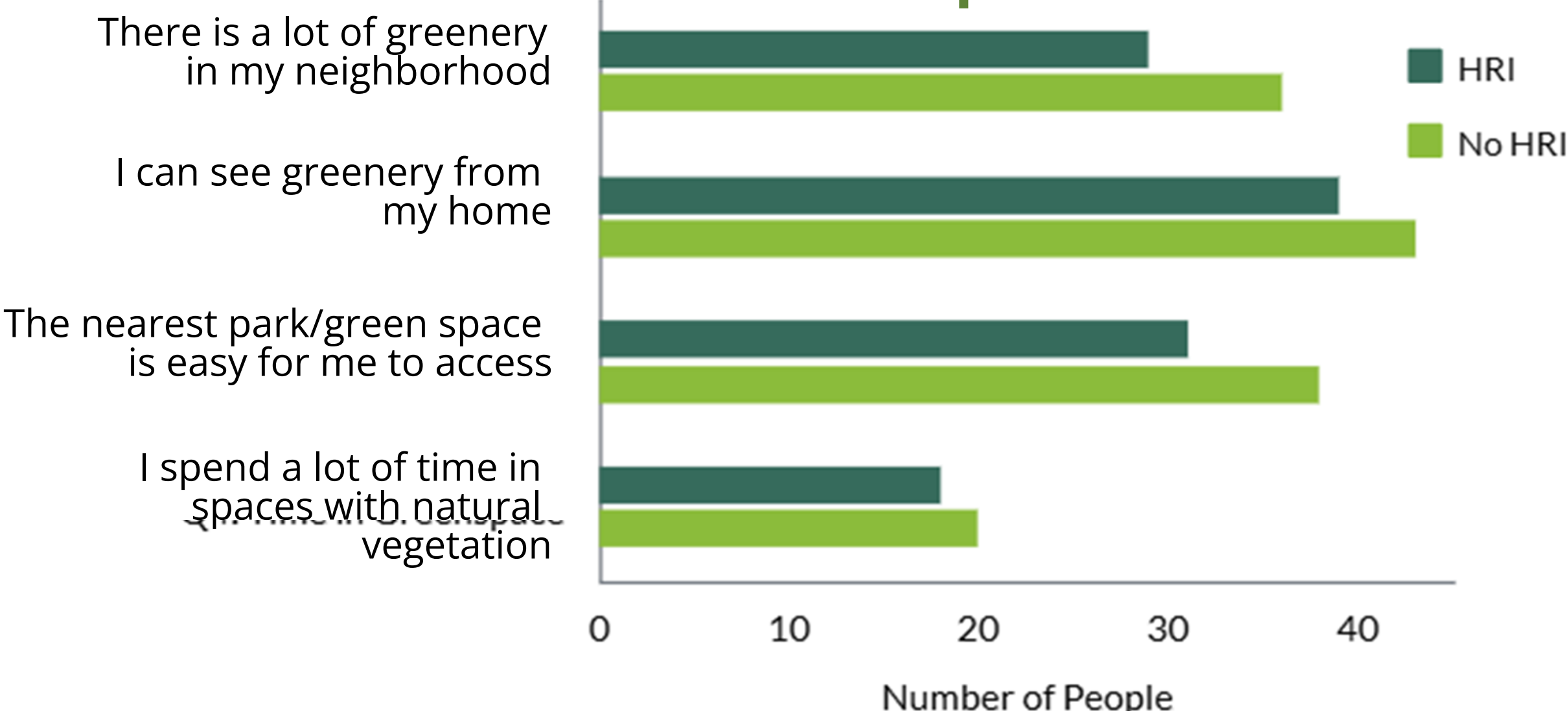
Participant Outdoor Activities in the 24 Hours Prior to Hospital Visit



Greenspace Perceptions:

- Participants who **experienced a HRI** felt that they had **less access to greenspace** than those that did not.
- However, **satellite data showed little difference in the amount of greenspace** around each participant's home no matter if they had experienced an HRI or not.

Participant Perceptions and Use of Greenspace



Key Takeaways



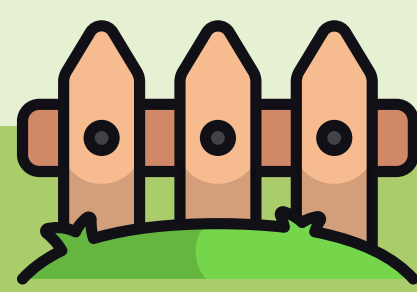
People who experienced heat-related illness had spent more time outside in the last day, and also felt like they had less access to greenspace, despite satellite data showing similar levels of greenness.



We need more research to learn why people don't always feel they have access to greenspace, even when it exists, and how this impacts health.



Simply adding more greenspace doesn't necessarily protect people from HRI. Future greenspace initiatives must also focus on **usability and accessibility**.



What does this mean for you?

Spending time outdoors, can **increase your risk of heat-related illness**, even if you're used to the heat. It is important to:



Stay hydrated before, during, and after time outside, and **limit** intake of **caffeine, alcohol, and sugary drinks**.



When outside, **take breaks in shaded areas** and try to **avoid peak heat hours** when possible.



Wear hats and lightweight, **loose-fitting clothing** to help your body stay cool.

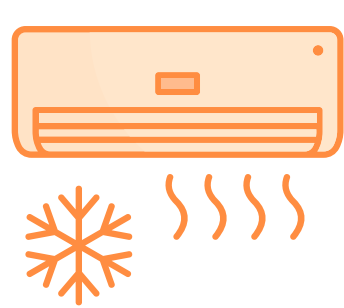
Additional Resources



Get more information about how extreme heat can impact health @ <https://bit.ly/4yGRP0f>



Learn more about the City of Atlanta's Climate Resilience Plan: <https://bit.ly/45gaUIS>



Find cooling centers in Atlanta: <https://bit.ly/3TuBv8U>



Read about how to stay safe in the heat at heat.gov.



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