# Section 1: Health Hazards, Exposure, and Impact

One paragraph introduction to section here.

## 1.1 Health and heat

Two to three sentences about the overall topic of this indicator group.

### Indicator 1.1.1: exposure of vulnerable populations to heatwaves

*Headline finding: individuals over 65 years and 75 years of age, and infants under one-year-old for the first time experienced on average 20.8, 21.1, and 20.5 days of heatwave per person, respectively*

Heatwaves pose a significant health risk, particularly for older adults, infants, and individuals with chronic conditions such as cardiovascular, respiratory, or kidney diseases. They also heighten the likelihood of adverse pregnancy and birth outcomes and can exacerbate neurological disorders.

This indicator monitors heatwave exposure among vulnerable age groups—infants under one year and adults over 65 and 75 years of age—by tracking the number of heatwave days they experience. For this analysis, heatwaves are defined as periods of at least two consecutive days where both minimum and maximum temperatures exceed the 95th percentile of local climatology, based on the 1986–2005 baseline.

To separate the effects of increasing heatwave frequency from demographic shifts, a counterfactual scenario was developed in which heatwave incidence remains constant at baseline levels, allowing for a clearer evaluation of the impact of population growth and aging.

In 2024, all vulnerable age groups experienced an increase in total heatwave person-days compared to 2023. Older adults (65+) recorded an unprecedented 17.7 billion person-days of heatwaves – an increase of 49% compared to 2023. Out of these, 6.4 billion person-days where experienced by people aged 75 year or over. Infants under one year experienced 2.9 billion person-days – an increase of 67% compared to 2023. On average worldwide, an older adult (65+) was exposed to 20.8 heatwave days per person, while an infant experienced 20.5 days. "Low" HDI countries saw the fastest growth in average annual heatwave days per person for both vulnerable groups, rising from 7.5 to 21.0 days—a 181% increase. Meanwhile, "High" HDI countries recorded the highest average exposure, reaching 23.3 heatwave days per person per year.

## Conclusion

In 2024, all vulnerable age groups experienced a rise in heatwave exposure by more than 44%. A combined total of 9.3 billion days were experienced by the most vulnerable people (under one year or above 75 years of age. If heatwave incidence had remained at 1986–2005 levels, their exposure would have been 50% lower.