# Section 1: Health Hazards, Exposure, and Impact

One paragraph introduction to section here.

## 1.1 Health and heat

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

*Headline finding: In 2024, people older than 65 years and 75 years, and infants younger than 1 year experienced a record-high average 20.8, 21.1, and 20.5 days of heatwave per person, respectively*

Heatwaves pose a significant health risk, particularly for older adults and infants (REF). Age-related decrements in sweating occur by the age of 65 years, with these impairments further pronounced above the age of 75 years (REF). The risk of underlying chronic diseases also increases with advanced ageing. Infants are especially vulnerable to extreme heat because of morphological disadvantages and a limited ability to behaviourally avoid the heat (REF).

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 (REF). 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 (REF), 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 by more than 44% compared to 2023. Older adults (65+ y) recorded an unprecedented 17.7 billion person-days of heatwaves – an increase of 49% compared to 2023, which itself was a record-high year. Out of these, 6.4 billion person-days were experienced by people aged 75 years or older. 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. If heatwave incidence had remained at 1986–2005 levels, their exposure would have been 50% lower.