## 1.1 Health and Heat

### Indicator 1.1.1: Exposure of Vulnerable Populations to Heatwaves

Heatwaves pose a significant health threat, with disproportionate impacts on vulnerable age groups (REF). Hence, this indicator quantifies the exposure of these vulnerable populations (under one year and adults over 65 years of age) to heatwave days across Europe.

In 2024, both vulnerable age groups experienced 2.3 billion person-days of heatwave exposure combined, exceeding the previous maximum of 2.1 billion person-days recorded in 2023 (REF REF).

Analysis of long-term trends shows a 342% increase in total heatwave exposure, rising from 369 million person-days in 1991-2000 to 1.63 billion person-days in 2015-2024. This increase results from two contributing factors: demographic changes leading to larger vulnerable populations, and a 129% increase in the frequency of heatwave days over the same period.

The geographical distribution of heatwave impacts exhibits regional variation. Eastern and Southern Europe, and Western Asia were the most affected regions where vulnerable groups where exposed to more than 15 days of heatwave per year since 2021. In 2024, older adults in Eastern Europe for the first time since 2000 experienced 34.5 days of heatwaves.

These findings indicate the growing climate-related health burden on Europe's most heat-vulnerable populations, suggesting the need for targeted adaptation and mitigation strategies.