A European Outlook

How air quality impacts health

Health impacts of air pollution

Headache and anxiety (SO_2)

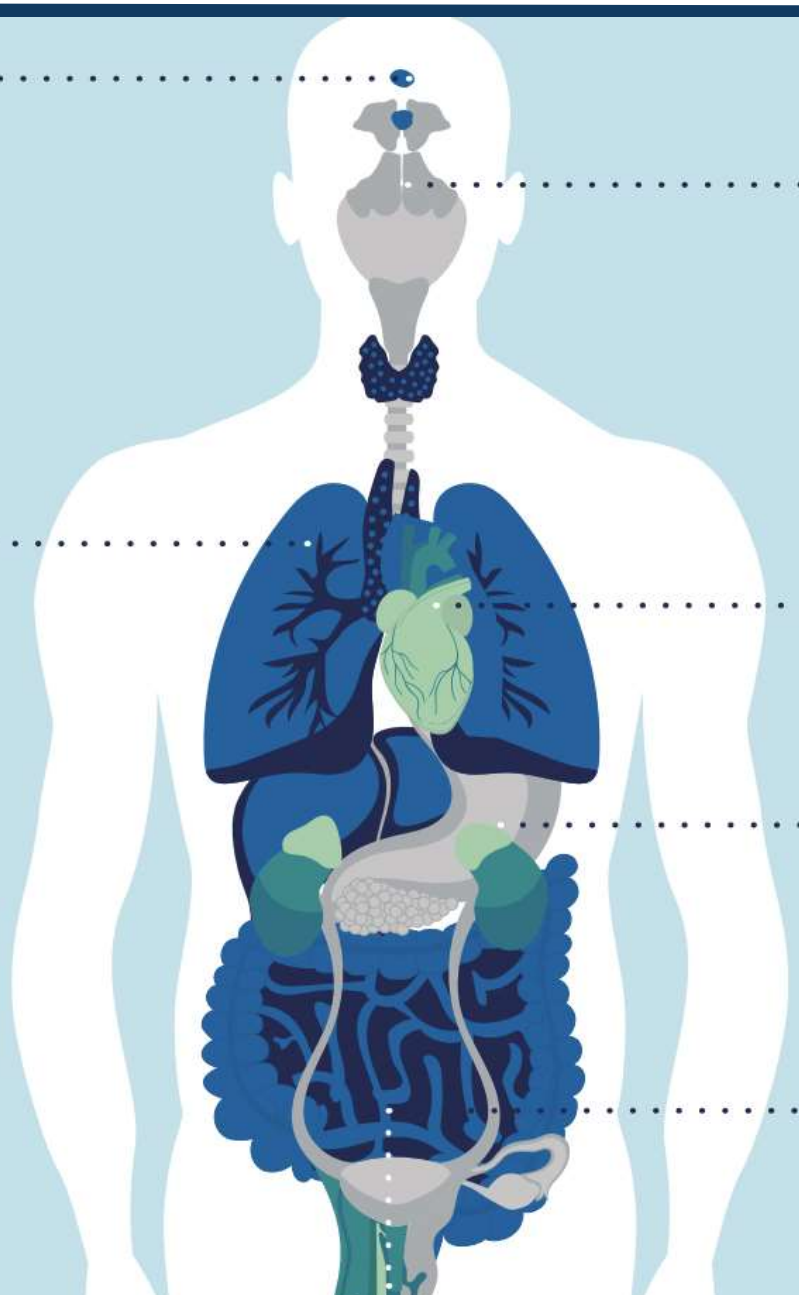
Impacts on the central nervous system (PM)

Irritation, inflammation and infections

Asthma and reduced lung function (NO_2)

Chronic obstructive pulmonary disease (PM)

Lung cancer (PM, BaP)



Irritation of eyes, nose and throat

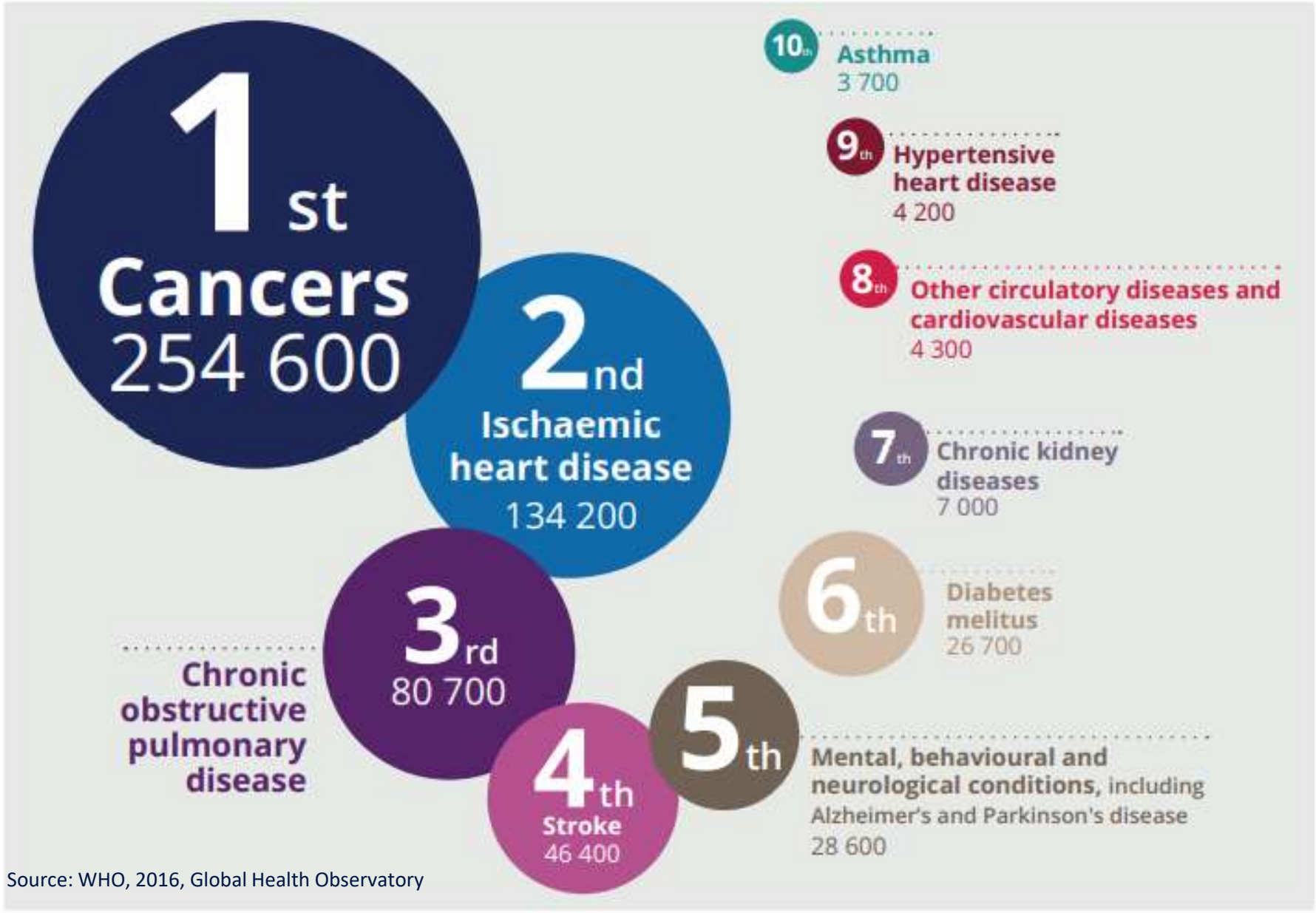
Breathing problems (O_3, PM, NO_2, BaP)

Cardiovascular diseases (PM, O_3, SO_2)

Impacts on liver, spleen and blood (NO_2)

Impacts on the reproductive system (PM)

90 % of EU deaths attributed to the environment: non-communicable disease



Source: WHO, 2016, Global Health Observatory

Top 10 non-communicable diseases driven by environmental pollution

Air pollution is linked to:

- 17 % of deaths from lung cancer
- 12 % of deaths from ischaemic heart disease
- 11 % of deaths from stroke

European Environment Agency

New WHO Global Air Quality Guidelines aim to save millions of lives from air pollution

Press release

Copenhagen and Geneva, 22 September 2021

Air pollution is one of the biggest environmental threats to human health, alongside climate change.

New World Health Organization (WHO) Global Air Quality Guidelines (AQGs) provide clear evidence of the damage air pollution inflicts on human health, at even lower concentrations than previously understood. The guidelines recommend new air quality levels to protect the health of populations, by reducing levels of key air pollutants, some of which also contribute to climate change.

For further information, contact:

Ceridwen Johnson
World Health Organization
Tel.: +41 79 578 9678
Email: johnsonce@who.int

James Creswick
WHO Regional Office for Europe
Tel.: +49 228 815 0403
Email: eupress@who.int

Leticia Linn
WHO Regional Office for Europe
Tel.: +49 228 815 0435
Email: eupress@who.int

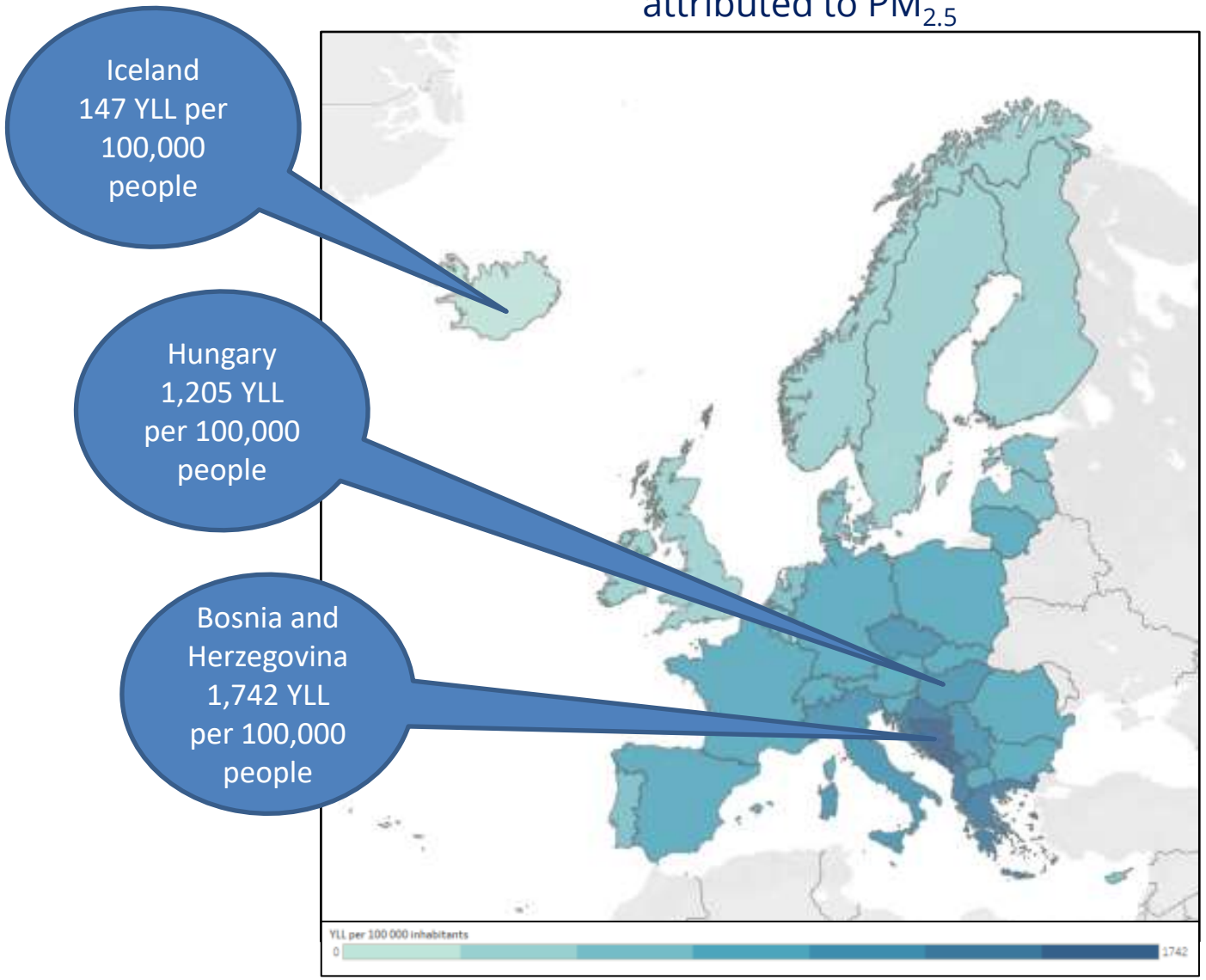
Health impacts of air pollution: mortality results

Health impact of key pollutants in the EU-27 in 2019

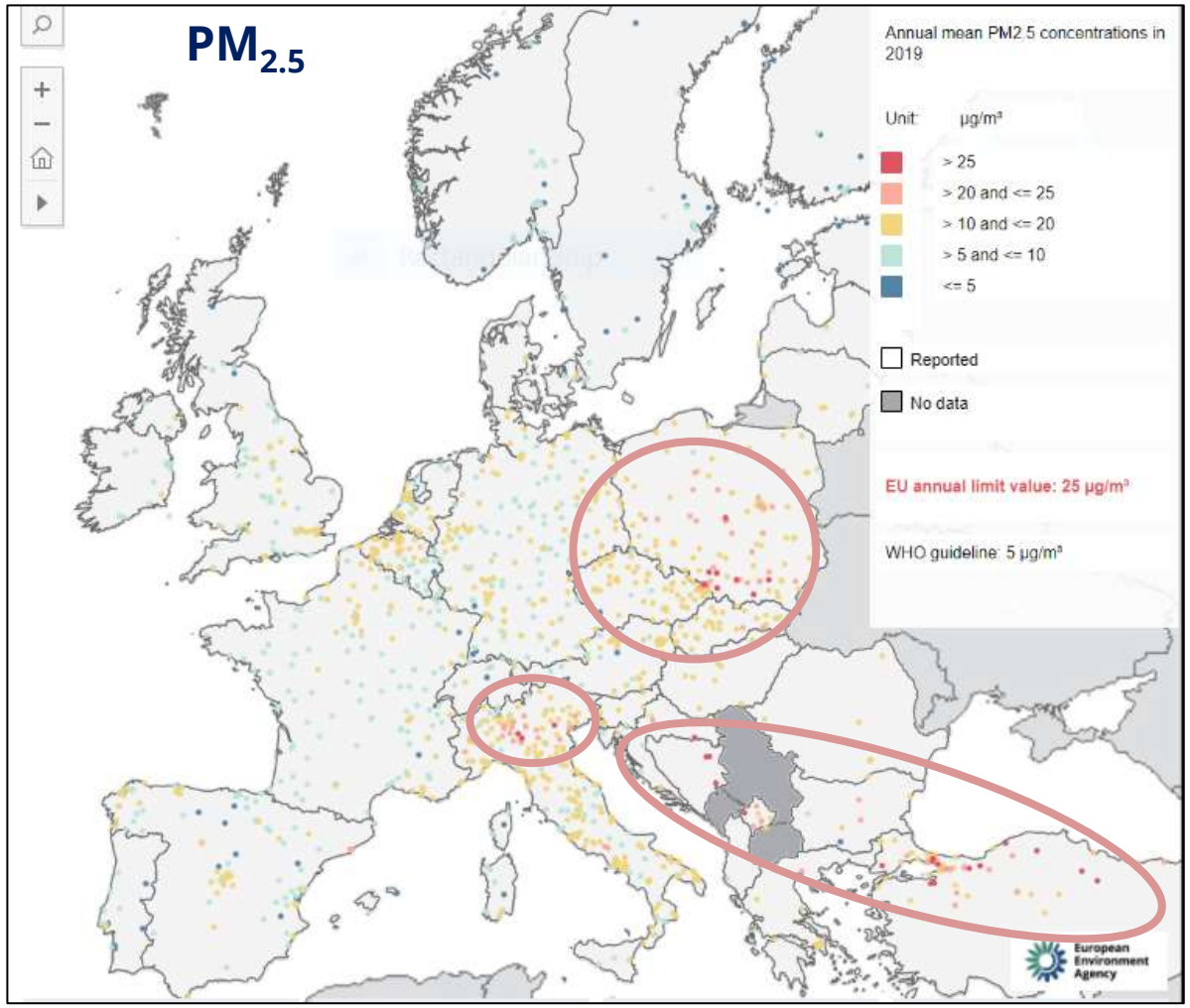
Pollutant	Premature deaths	Years of life lost
Fine particulate matter	307,000	3,370,000
Nitrogen dioxide	40,400	435,600
Ozone	16,800	190,000

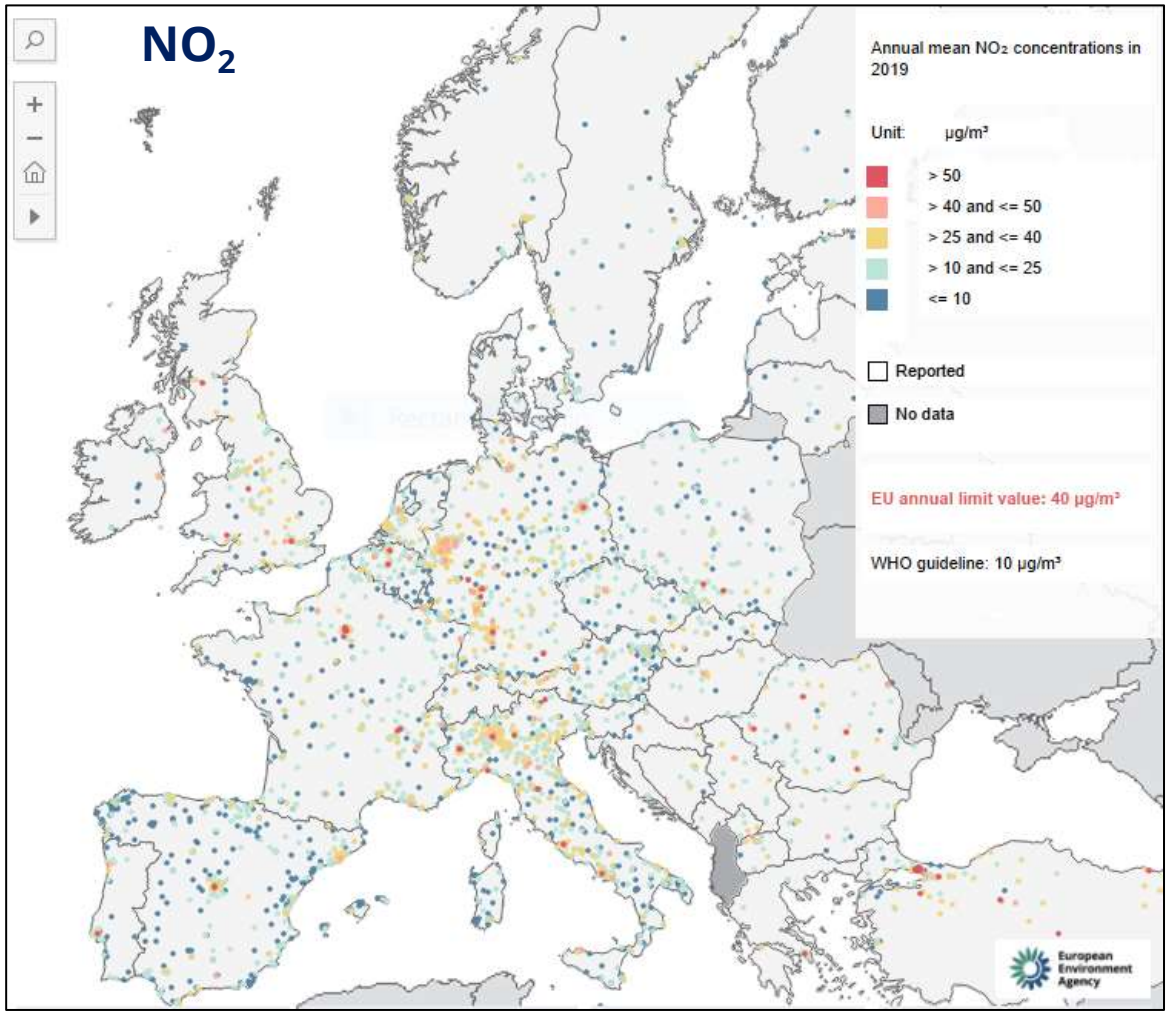
[EEA, 2019]

2019 years of life lost per 100,000 people attributed to $PM_{2.5}$



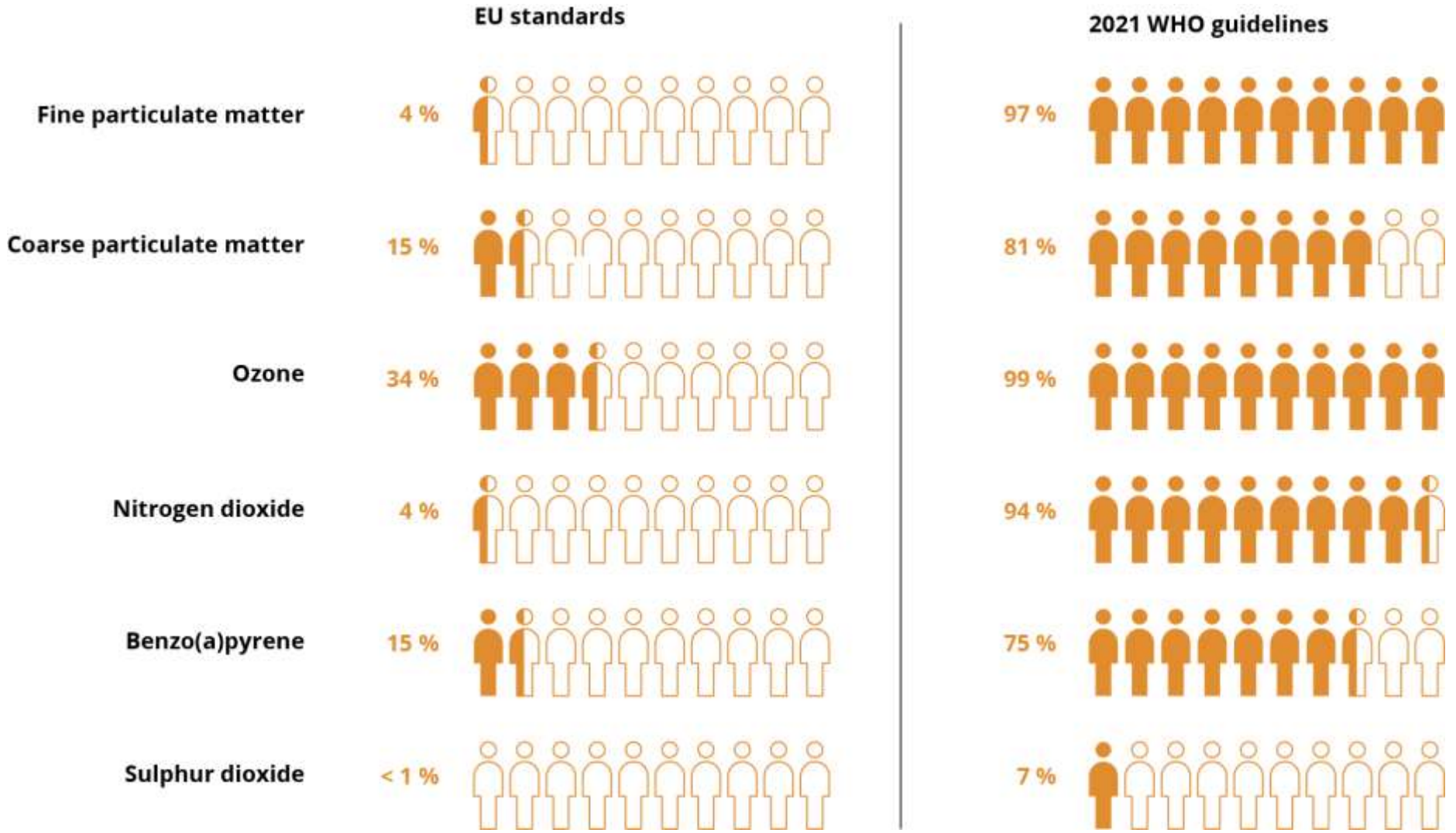
2019 concentrations of two main pollutants



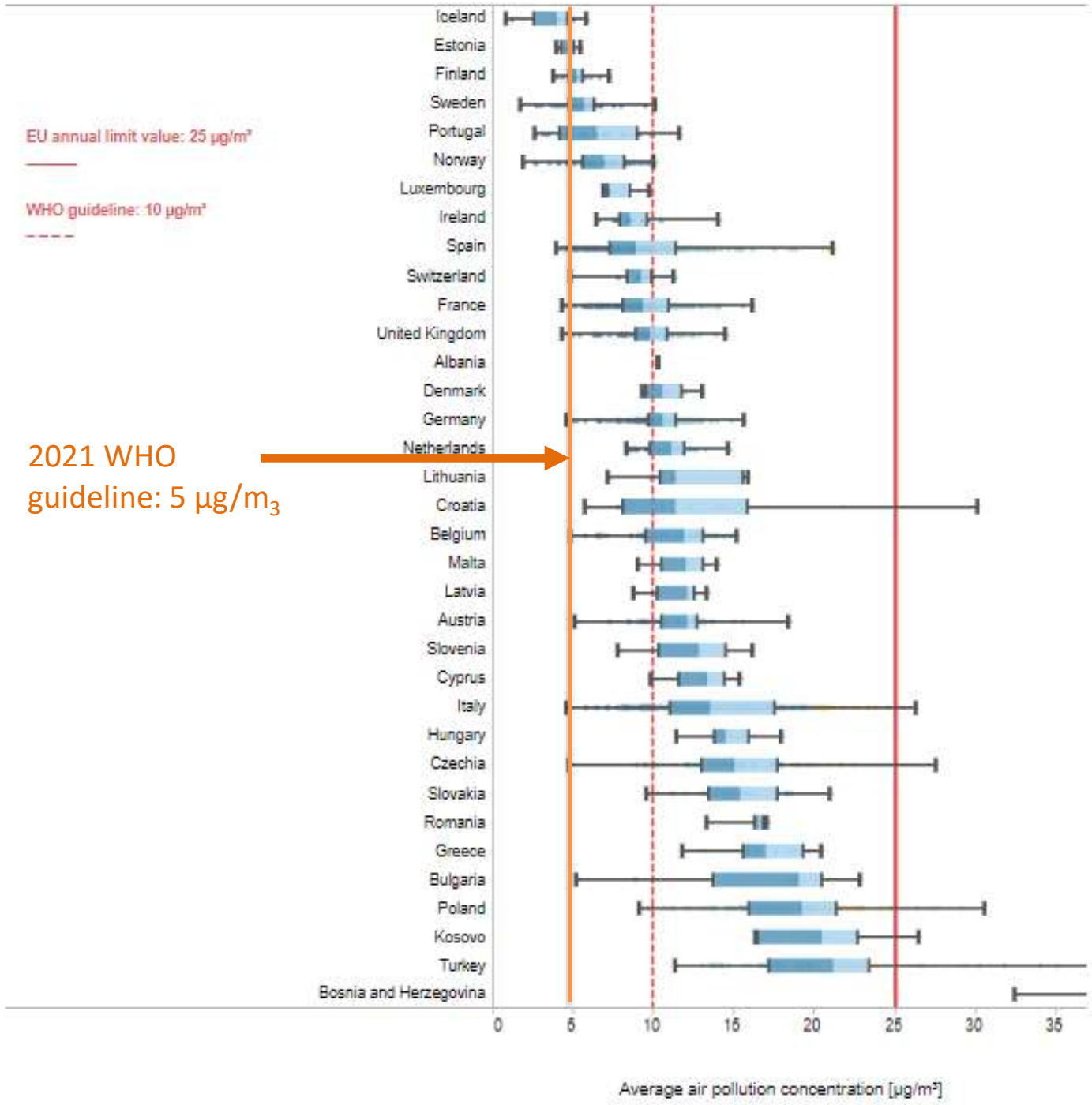


European Environment Agency

2019 urban population exposure



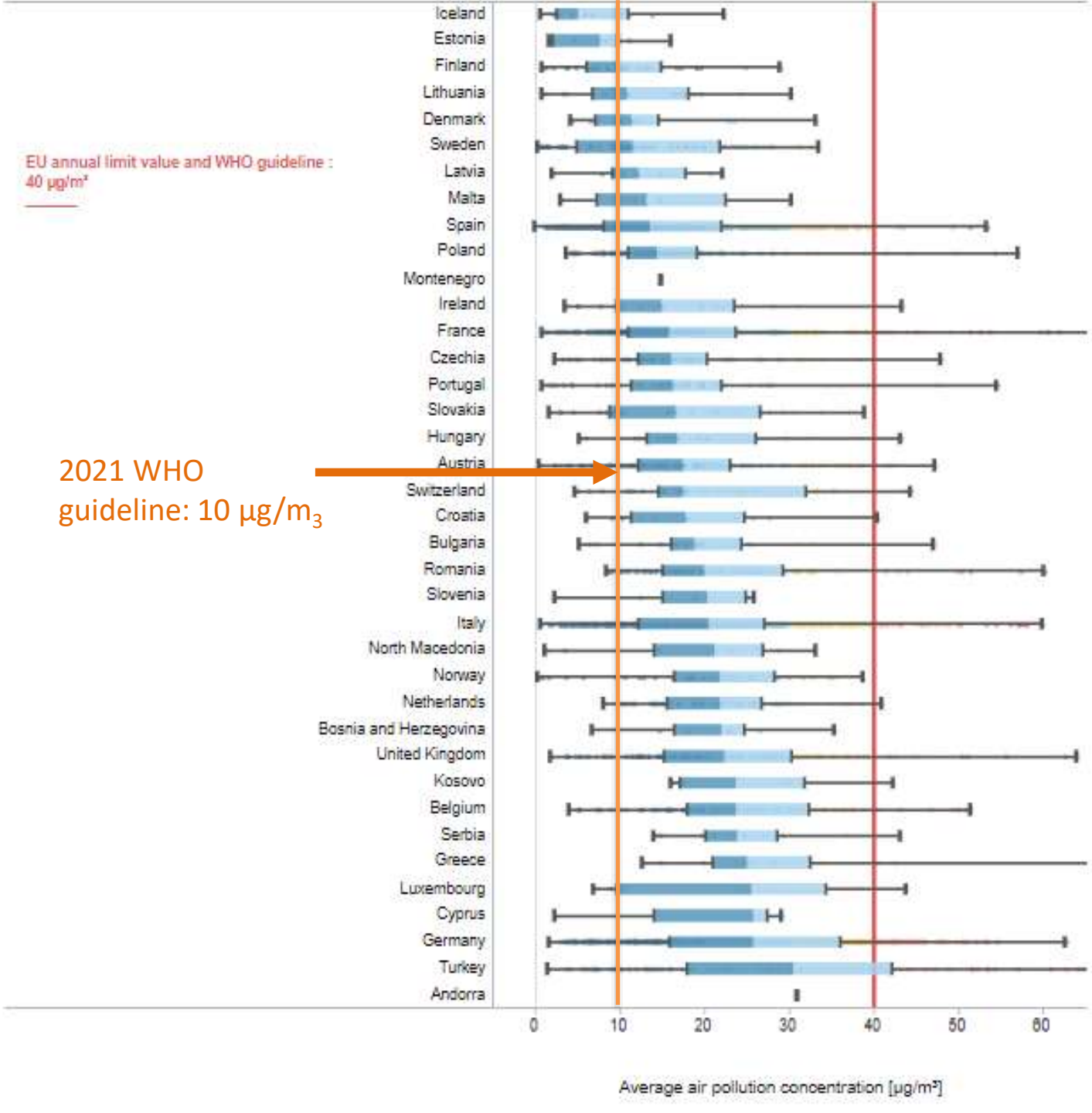
European Environment Agency



$PM_{2.5}$ concentrations in 2019 by country in relation to:

- the EU annual limit value
- 2005 WHO guideline
- 2021 WHO guideline – all countries have exceedances

European Environment Agency



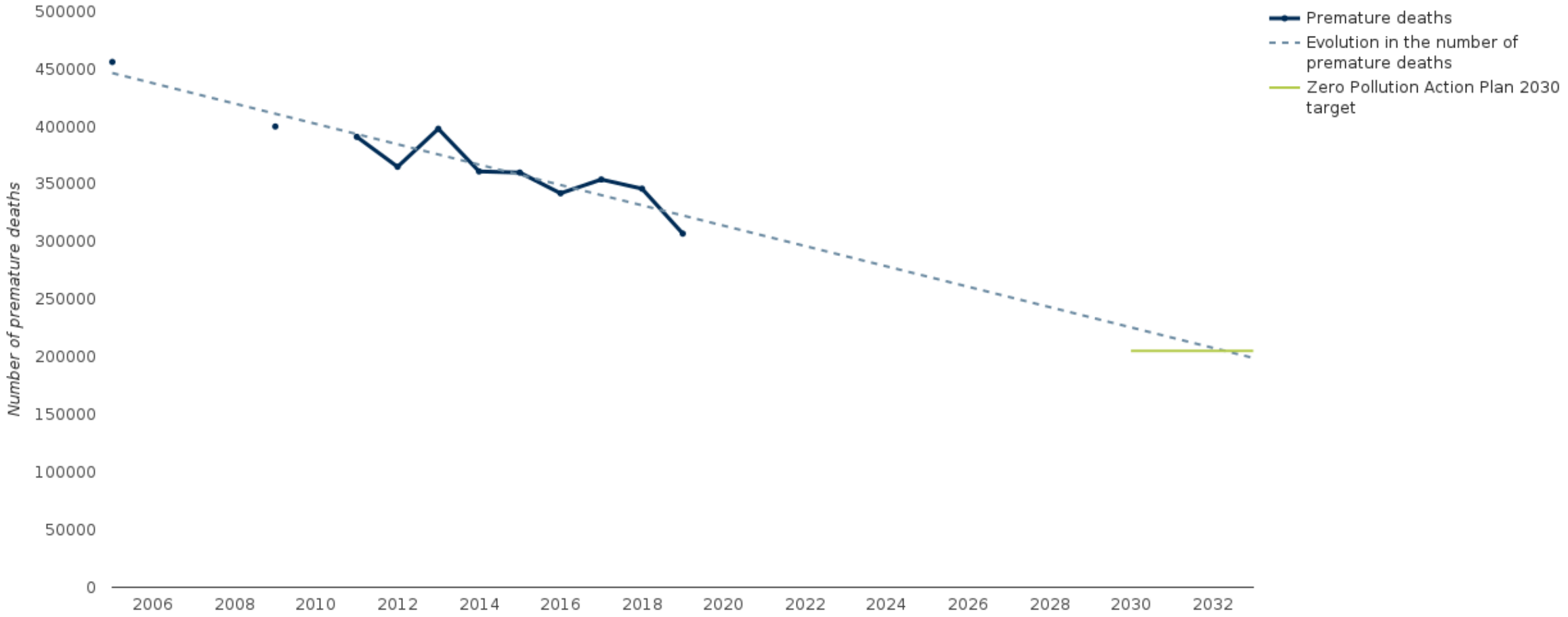
NO_2 concentrations in 2019 by country in relation to:

- the EU annual limit value & 2005 WHO guideline
- 2021 WHO guideline – all countries have exceedances

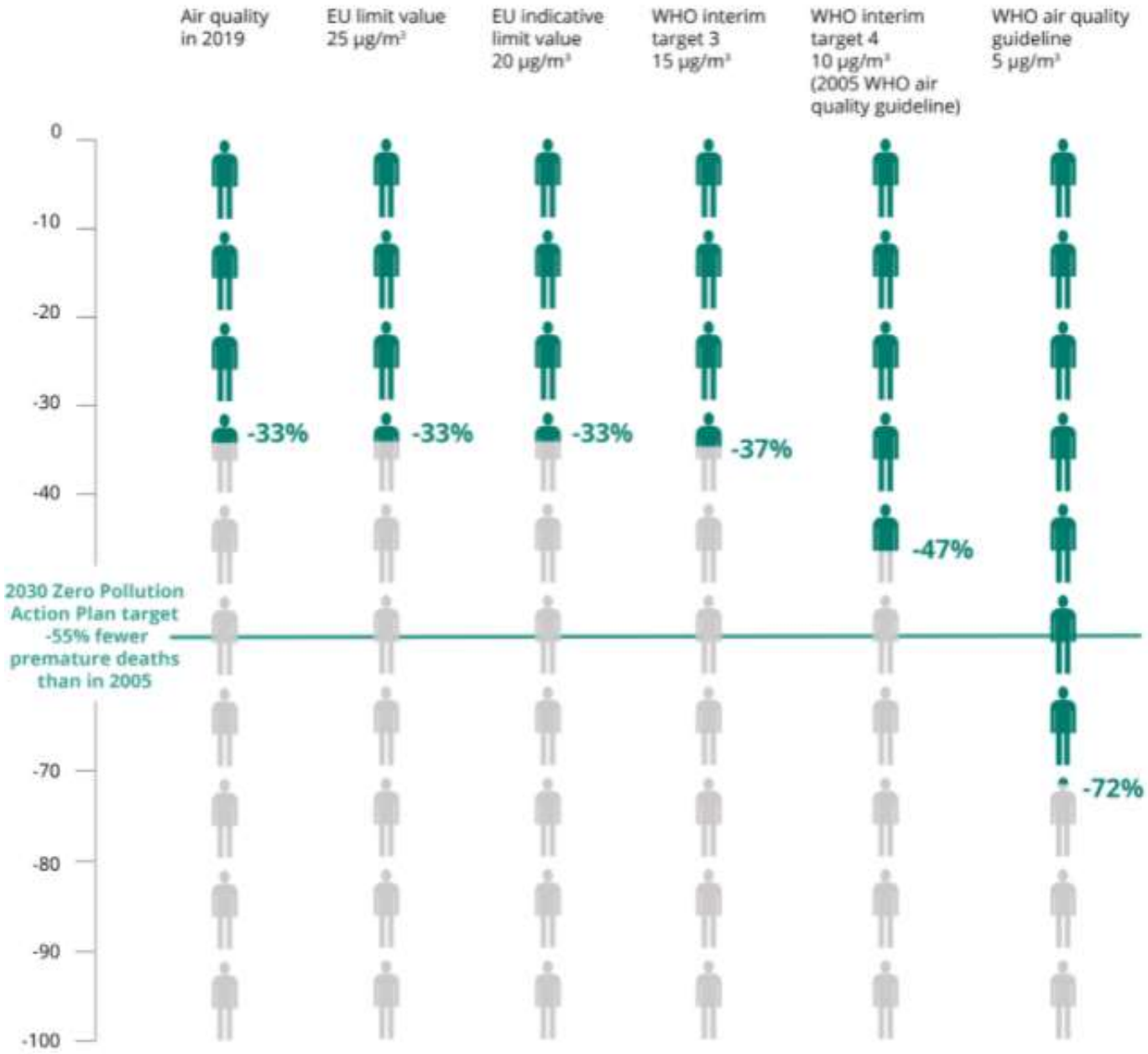
European Environment Agency

Progress towards the Zero pollution action plan 2030 target

Chart — Premature deaths attributed to PM2.5 in the EU-27 (2005-2019), and progress towards the Zero Pollution Action Plan target on air pollution



European Environment Agency



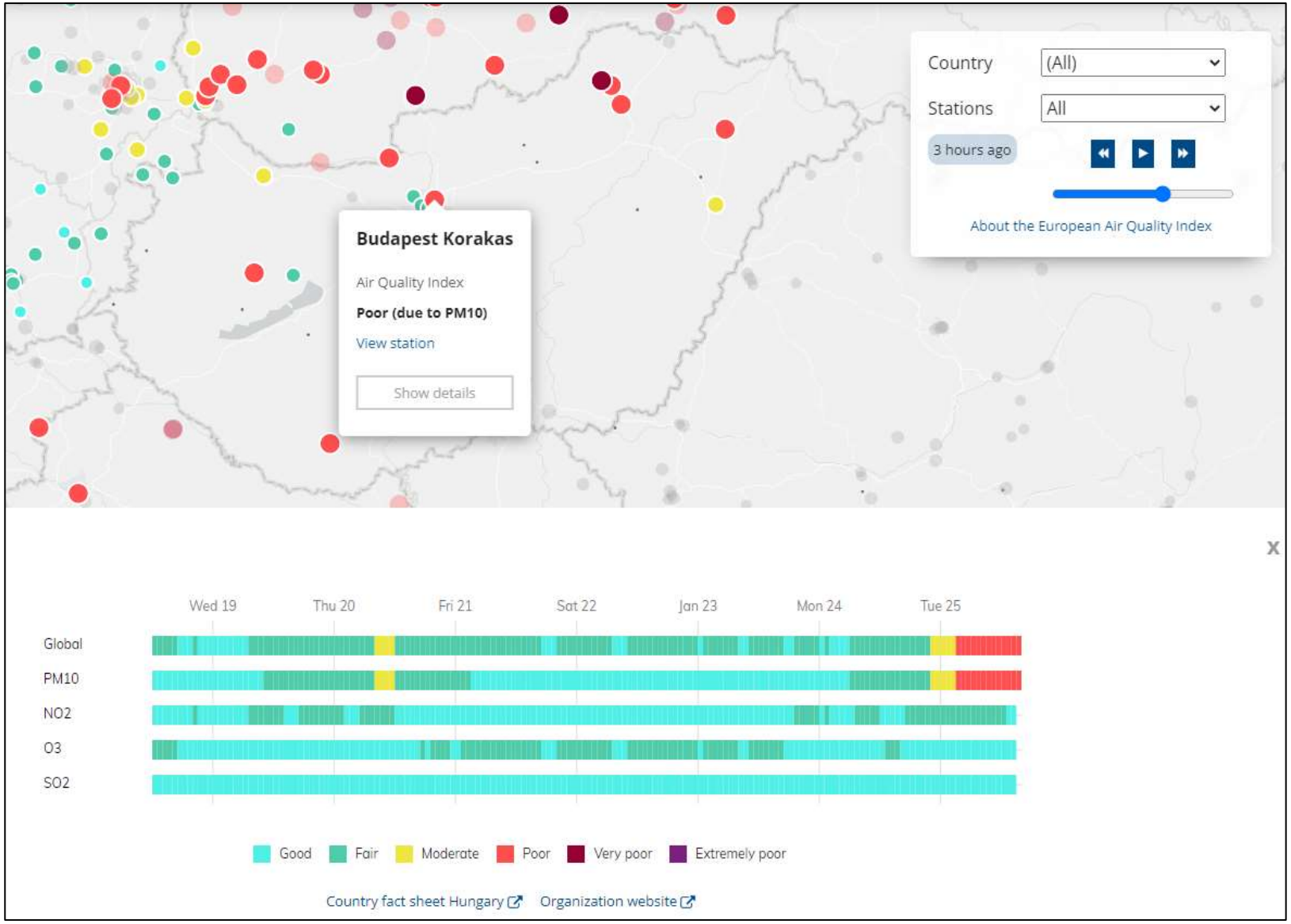
Minimum health benefits had all areas in the EU-27 met the range of EU standards and WHO guideline levels in 2019

72 % fall in premature deaths compared with 2005

Achieving the Zero Pollution Action Plan target

Minimum benefits – as concentrations would also have fallen in areas where standards were already met

European air quality index



Budapest Korakas (HU0042A)

Air Quality Index	Poor (due to PM10)
Date	2022-01-25 13:00 UTC+1
Country	Hungary
Location	Budapest
Classification	Background
Area	Urban

General population

Consider reducing intense activities outdoors, if you experience symptoms such as sore eyes, a cough or sore throat.

Sensitive population

Consider reducing physical activities, particularly outdoors, if you experience symptoms.

European Environment Agency

Explore air quality information

European city air viewer

How clean is the air in my city?

based on the levels of fine particulate matter measured in the air in cities in 2019 and 2020

✓ Keep Only ⊘ Exclude

City:	Budapest
Country:	Hungary
Rank:	240/323
Fine particulate matter in µg/m3:	14.19
Air quality category:	moderate
Number of stations:	2
City population:	1,728,868

PM2.5 annual mean concentration, µg/m3

0 - 10	good
10 - 15	moderate
- 25	poor
- 35	very poor
data	-

untry
ungary

City
(All)

European Environment Agency

Thank you

Catherine.ganzleben@eea.europa.eu
Alberto.GonzalezOrtiz@eea.europa.eu