

# Health, SEA and COVID-19

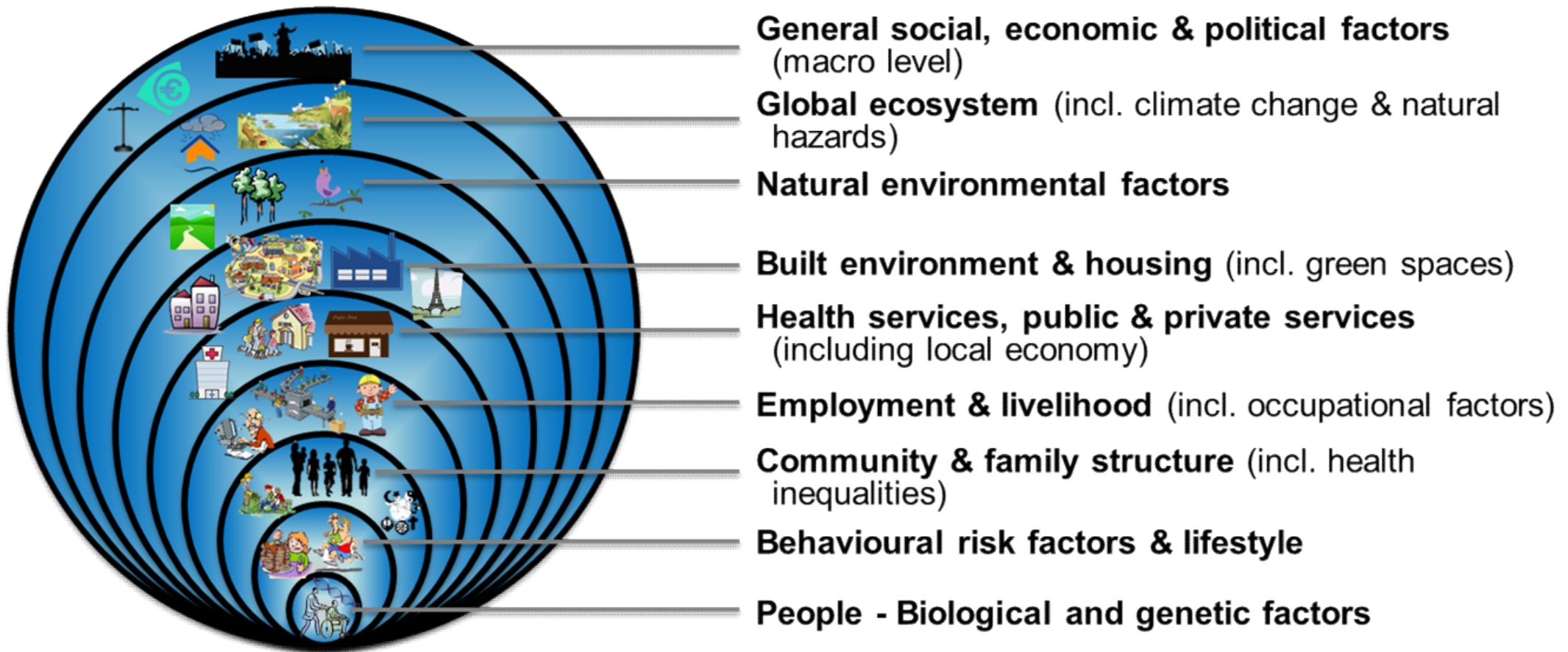


**Some thoughts on the emerging importance of health inclusive SEA – and what are the expectations for a (post) COVID-19 world**

09 September 2020

Dr Julia Nowacki | WHO European Centre for Environment and Health | Bonn, Germany

“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1946)

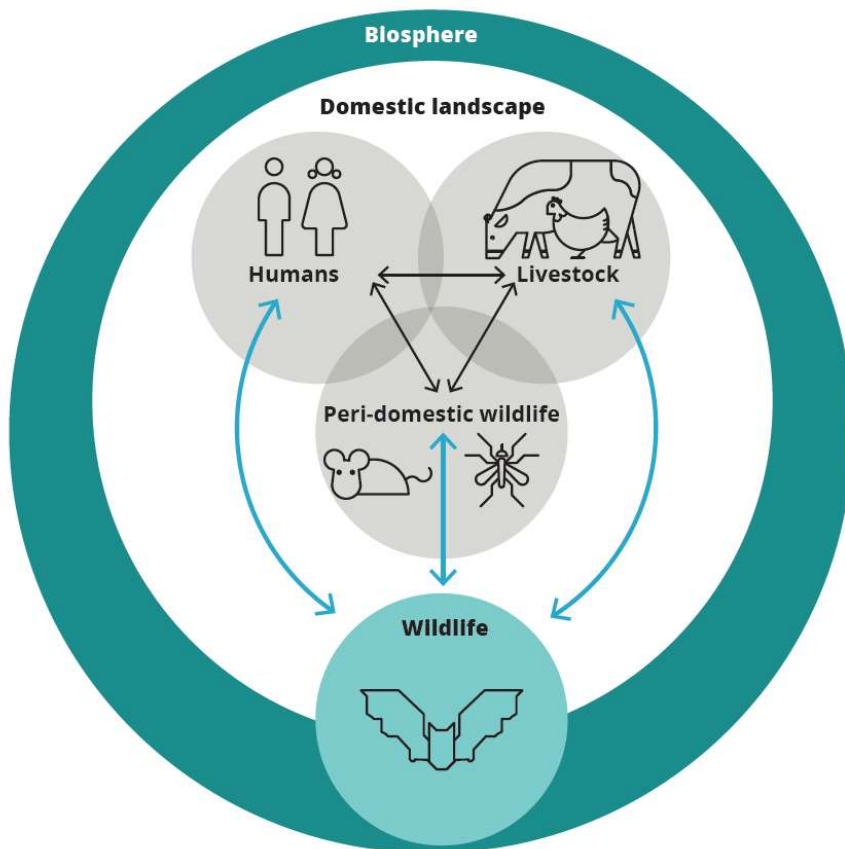


## Environment – health – COVID-19 pandemic

- Shows the inextricable links between human health and ecosystem health:
  - SARS-COV thought to have emerged in bat populations, subsequently jumping species to infect humans in a seafood and animal market
  - about 60 % of human infectious diseases are of animal origin (Woolhouse and Gowtage-Sequeria, 2005)
  - three quarters of new and emerging infectious diseases are transmitted to humans from animals (Taylor et al., 2001) e.g. HIV, Rift Valley fever virus, Ebola, Hantaviruses, Nipah virus, West Nile virus, bubonic plague...
- The emergence of such zoonotic pathogens is linked to environmental degradation and human interactions with animals in the food system.
- Other factors, such as exposure to air pollution and social status, seem to affect transmission and mortality rates in ways that are not yet fully understood.
- Other dimensions of our environment and our social organisation interplay with COVID-19 in ways that are not yet fully understood:
  - environmental and social factors that influence human vulnerability and susceptibility to the disease;
  - water, sanitation and hygiene facilities are key to preventing the spread of COVID-19;
  - waste water monitoring emerging as an effective tool for tracking the circulation of the virus.

# The interfaces between people, livestock and the wildlife reservoirs of zoonotic disease

Zoonotic disease transmission at the interface between humans, livestock and wildlife



Source: EEA, 2020. Fig. 0.1, adapted from Jones et al., 2013

United Nations Environment Programme and the International Livestock Research Institute (2020) identify seven major anthropogenic drivers of zoonotic disease emergence, including:

- Increased demand for animal protein;
- Unsustainable agricultural intensification;
- Increased use and exploitation of wildlife;
- Unsustainable utilisation of natural resources accelerated by urbanisation, land use change and extractive industries;
- Travel and transportation;
- Changes in food supply chains;
- Climate change.

Source: EEA, 2020. Healthy environment, healthy lives: how the environment influences health and well-being in Europe, p. 11



Providing a high level protection of the environment, including health, through development of plans and programmes, preparation of policies and legislation, integration to further sustainable development (UNECE Protocol on SEA)

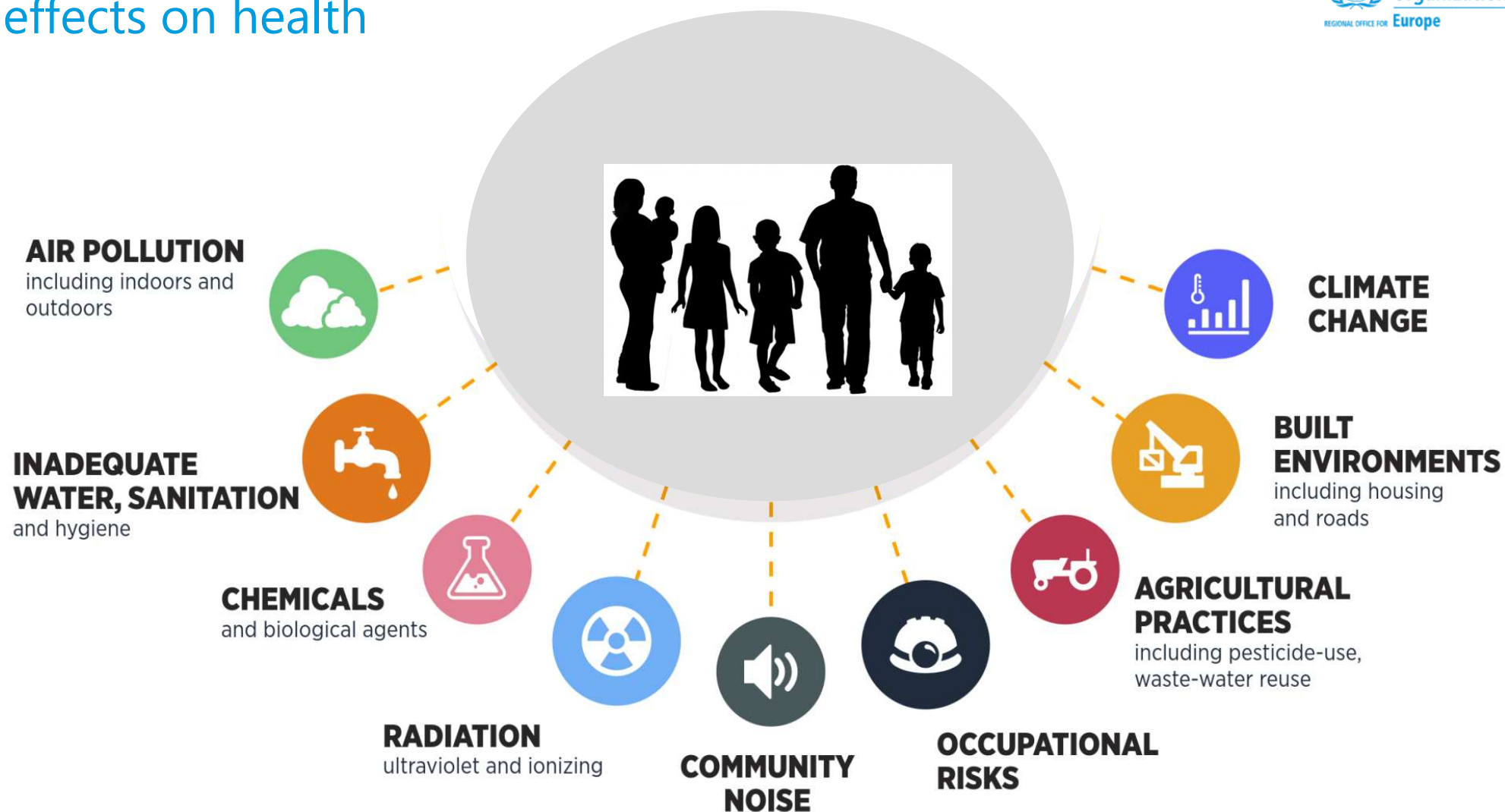
## Sectors where SEA (may) apply (Annex I, II)

- a) Agriculture, forestry and fishery
- b) Energy industry
- c) Extractive industry
- d) Other industry (e.g. chemicals, food)
- e) Infrastructure projects
- f) Telecommunications
- g) Tourism and leisure
- h) Waste management
- i) Water management



Source: based on UNECE (2003)

# Environmental risk factors with likely (significant) effects on health



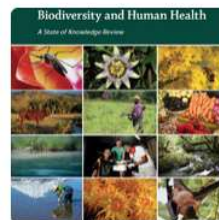
# A healthy recovery from COVID-19

Prescriptions and Actionables for a Healthy and Green Recovery, WHO Manifesto, 2020



- Societies need to protect themselves, and to recover, as quickly as possible.
- We cannot go back to the way we did things before.
- The “lockdown” measures that have been necessary to control the spread of COVID-19 have slowed economic activity, and disrupted lives - but have also given some glimpses of a possible brighter future.
- WHO Manifesto is aiming at creating a healthier, fairer and greener world while investing to maintain and resuscitate the economy hit by the effects of COVID-19

## Six prescriptions:



- Protect and preserve the source of human health: Nature.
- Invest in essential services, from water and sanitation to clean energy in healthcare facilities.
- Ensure a quick and healthy energy transition.
- Promote healthy, sustainable food systems.
- Build healthy, liveable cities.
- Stop using taxpayers money to fund pollution.

# Prescriptions and Actionables for a Healthy and Green Recovery – some examples

WHO Manifesto, 2020

## 1. Protect and preserve the source of human health: Nature.

- **Biological diversity**
  - Incorporate biodiversity values, ecosystem protection and the 'value of nature' into national and regional policies, strategies and programmes
- **Climate Change**
  - Implement sustainable infrastructure development and spatial planning to avoid locking societies into greenhouse gas-intensive emission pathways
- **Sanitation**
  - Develop and implement multi-sectoral sanitation policies
- **Air pollution**
  - Develop coherent multi-sectoral policies and actions across transport, industry, power generation, waste and wastewater management, agriculture, housing and land use sectors
- **Chemicals**

## 5. Build healthy, liveable cities.

- **City design**
  - Improve access to good-quality public and green open spaces
- **Social inclusiveness and cohesion**
  - Create more socially inclusive places and spaces through a variety in spatial planning, such as in land parcel size, forms of land tenure, and size of housing
- **Cleaner air**
  - through implementing interventions in polluting sectors, such as in transport and industry,
- **Access to adequate water, sanitation, hygiene, waste management and food**
- **Housing**



# Why further joining forces between health and environment in impact assessments?

## 5 advertisements

1. Environment and health are a necessary elements of sustainability.
2. A healthy economy depends on a healthy population which depends on a healthy environment.
3. A polluted environment and ill-health are major disrupters of the economy.
4. Health and environment are of the main concerns of populations affected by PPPP.
5. Early inclusion of health in EIA/SEA – decision-making – prevents problems in later stages.



**Going back to “normal”  
is not good enough.**  
*(WHO Manifesto, 2020)*

# Health in environmental assessments is about ...



- How to integrate health and balance it with other issues;
- Involving the right people;
- Team building;
- Bridging the language divide;
- Building sustainable and healthy opportunities for a green recovery.



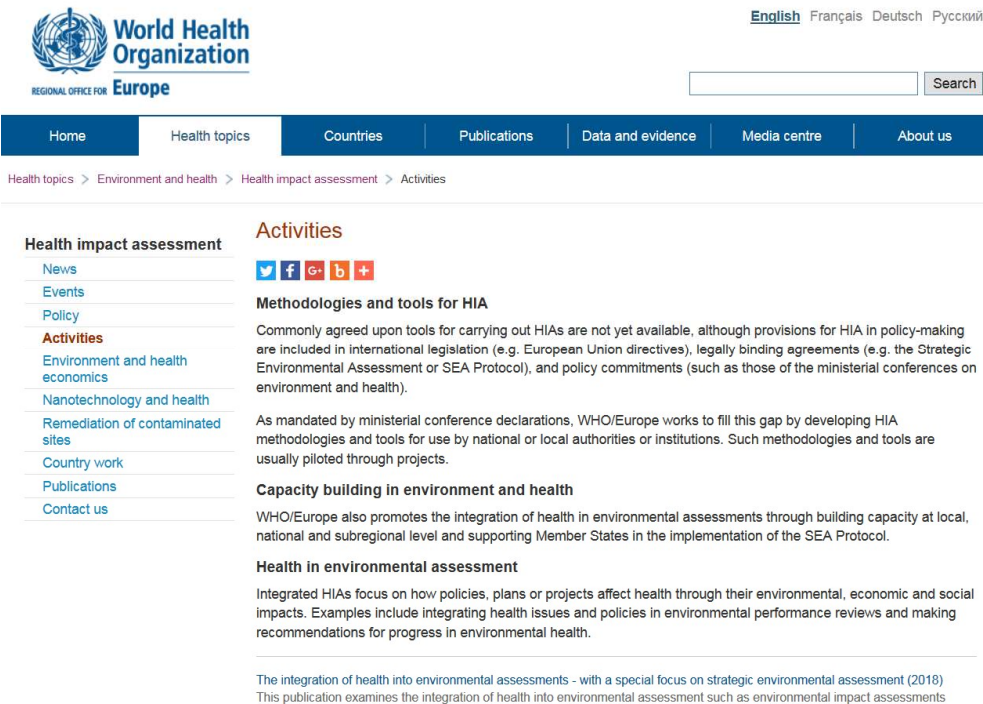


Networking, compiling  
resource & developing tools

**HIA and health  
assessments in EAs  
@ WHO**

# HIA and health in EA online resources

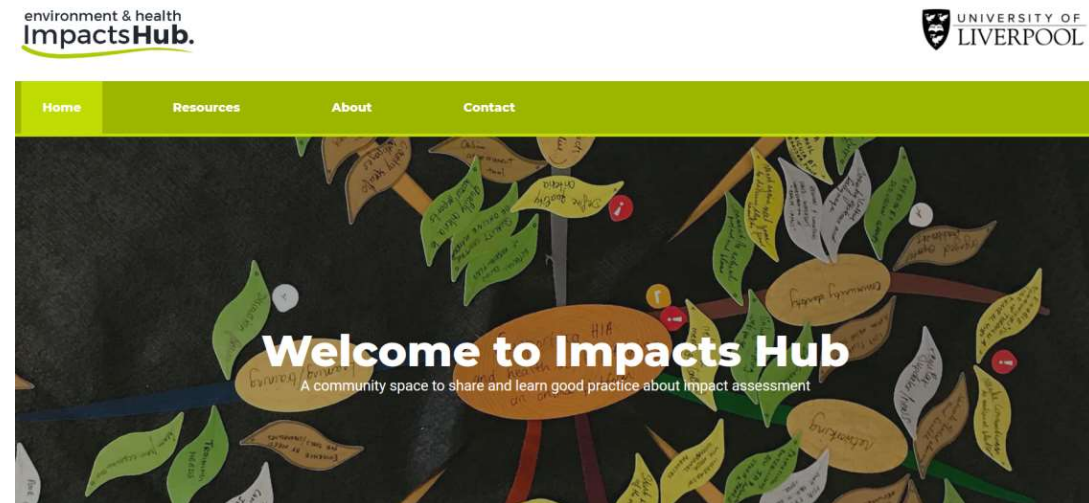
[www.euro.who.int](http://www.euro.who.int)



The screenshot shows the WHO Europe website. At the top, there is a navigation bar with links for Home, Health topics, Countries, Publications, Data and evidence, Media centre, and About us. Below this is a search bar. The main content area is titled 'Health impact assessment' and includes a sidebar with links to News, Events, Policy, Activities, Environment and health economics, Nanotechnology and health, Remediation of contaminated sites, Country work, Publications, and Contact us. The main text area discusses 'Activities', 'Methodologies and tools for HIA', 'Capacity building in environment and health', and 'Health in environmental assessment'. It mentions that WHO/Europe works to fill gaps in HIA methodologies and tools, and promotes the integration of health in environmental assessments through capacity building and policy integration.

[www.impactshub.com](http://www.impactshub.com)

Hosted by the WHO CC on health in impact assessments



The screenshot shows the ImpactsHub website. It features a green header with navigation links for Home, Resources, About, and Contact. The main content area has a dark background with a large, stylized tree graphic. The text 'Welcome to Impacts Hub' is prominently displayed, followed by the tagline 'A community space to share and learn good practice about impact assessment'. The University of Liverpool logo is visible in the top right corner.

Resources:

- Case studies
- Guidelines
- Training
- Glossary
- Web-links (Library)



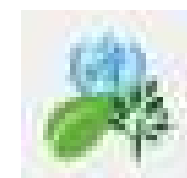
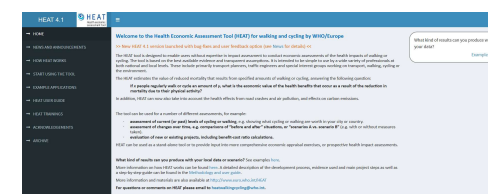
# WHO publications on HIA and health in EAs



# Tools for assessing health and economic benefits

Produce **estimates** that support **decision-makers** to develop appropriate **actions** to protect **public health**

- **AirQ+** - software to calculate the health impacts of AP
- **HEAT** - health and economic assessment tool for cycling and walking
- **iSTHAT** - (Integrated Sustainable Transport & Health Assessment Tool) a simplified methodological framework (user-friendly interactive Excel-based tool) for evaluation of health and economic benefits of carbon measures in the context of urban transportation.
- **GreenUr** - software to calculate the health impacts of Green Spaces



Source: <http://www.euro.who.int/en/health-topics/environment-and-health>

**“Attempting to save money by neglecting environmental protection, emergency preparedness, health systems, and social safety nets, has proven to be a false economy – and the bill is now being paid many times over.”**  
**WHO, 2020**

**Thank you for your attention!**

**WHO Regional Office for Europe  
European Centre for Environment and Health**

Platz der Vereinten Nationen 1  
53113 Bonn  
Germany



WHO\_Europe



facebook.com/WHOEuro



instagram.com/whoeuro



youtube.com/user/whoeuro



World Health  
Organization

REGIONAL OFFICE FOR

Europe



Organisation  
mondiale de la Santé

BUREAU REGIONAL DE L'

Europe



Weltgesundheitsorganisation

REGIONALBÜRO FÜR

Europa



Всемирная организация  
здравоохранения

Европейское региональное бюро





**BACK – UP**



# Opportunities for health in environmental assessments (EA)

- Policies, plans, programs and projects **outside the health sector** influence health
- Great potential for **disease prevention** and **health promotion**
  - Need to get involved in other sectors already at the decision-making level – Health in All Policies approach
- Opportunities to get **health recognized in other sectors decision-making** processes, is supported through divers frameworks
  - World Health Assembly (WHA) Resolutions (1982, 1992)
  - Sustainable development goals (SDG)
  - WHO GPW13 framework with a whole-of-government and whole-of-society approach
  - European Ministerial Conference on Environment and Health and its process (since 1998)
  - Legal obligations for assessing health in environmental assessments within the EU and through Multilateral Environmental Agreements, e.g. UNECE conventions & protocols



# Protecting health through a high level of protection of the environment



In 2012, **12.6 million deaths globally**, were attributable to the environment – nearly 1 in 4 of total global deaths.

When accounting for both death and disability, the fraction of the **global burden of disease** due to the environment is 22%.

In **children under five years**, up to **26% of all deaths could be prevented**, if environmental risks were removed.



## Why is it not enough to tick off limit values or thresholds? An example: air pollution

In 2012, **92% of the world's population** lives in places where air quality levels exceed “WHO's Ambient Air quality guidelines” for annual mean of particulate matter with a diameter of less than 2.5 micrometres (PM<sub>2.5</sub>: 10 µg/m<sup>3</sup> year).

An estimated **6.5 million deaths** (**11.6% of all global deaths**) were associated with **indoor and outdoor air pollution** together - out of this 3 million to outdoor air pollution

Nearly 90% of air-pollution-related deaths occur in **low- and middle-income** countries

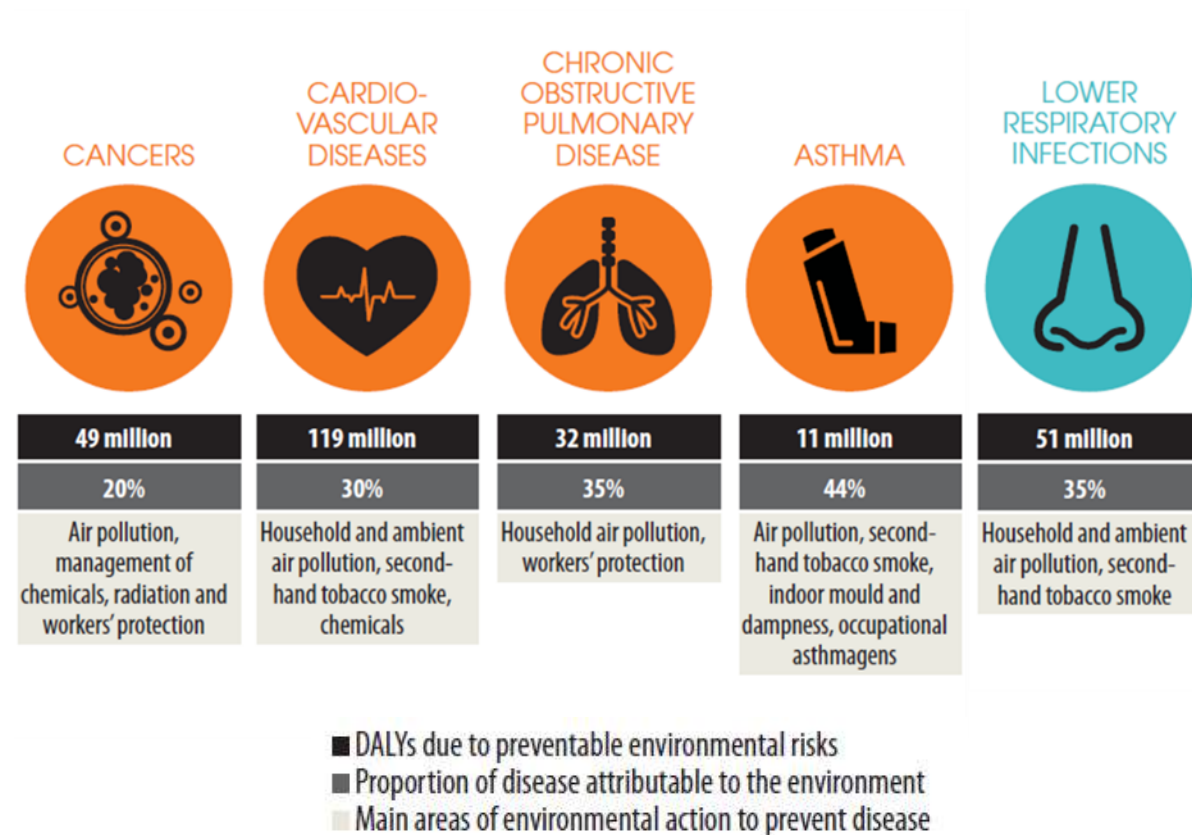
Source: Prüss-Üstün A, et al., 2016



# Air pollution: major sources & diseases attributable to the environment

Major sources of air pollution include

- inefficient modes of transport
- household fuel
- waste burning
- coal-fired power plants, and
- industrial activities.



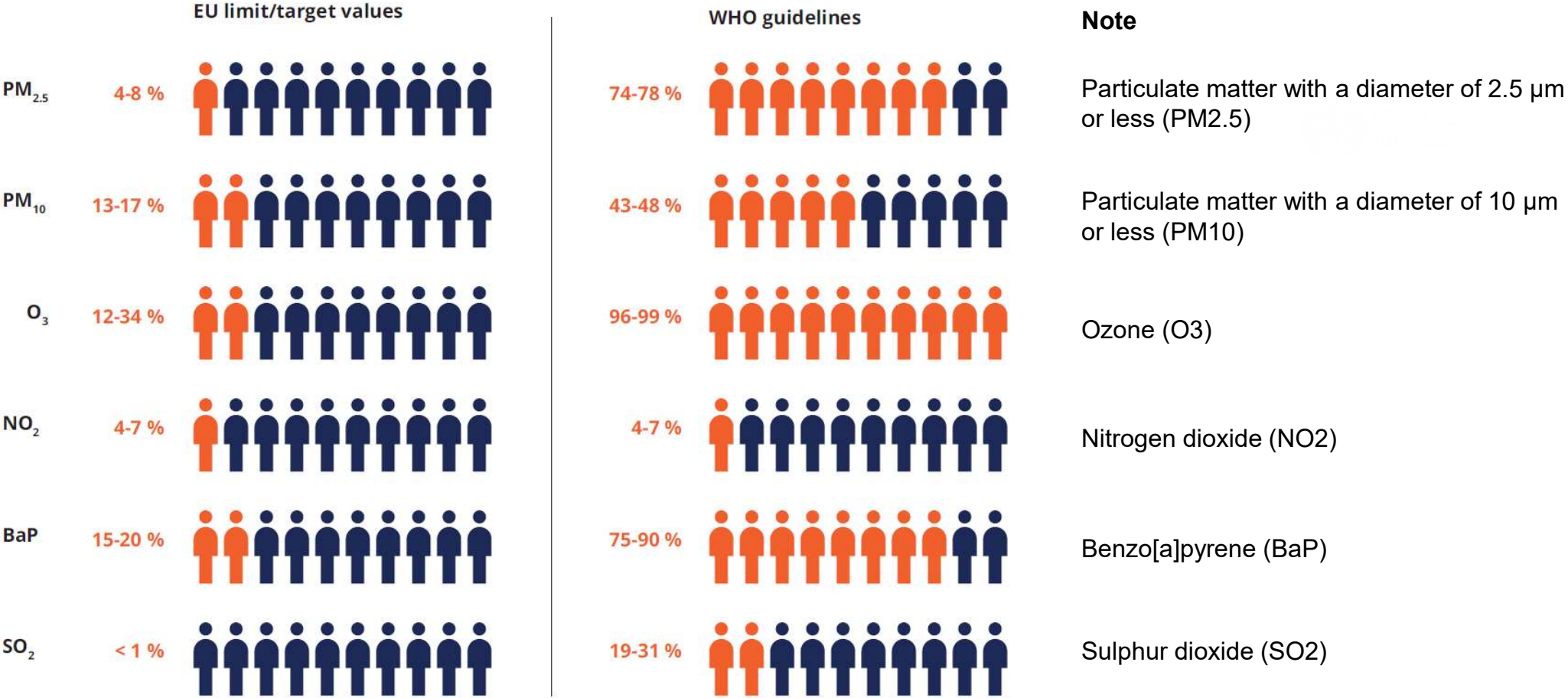
Source: Prüss-Üstün A, et al., 2016, p. XVI, Fig. ES2



# Urban population in the EU-28 exposed to air pollutant concentrations above the EU and WHO reference levels (2014-2016)

Pollutant	EU reference value	Exposure estimate (%)	WHO reference value Air Quality Guidelines	Exposure estimate (%)
Particle PM <sub>2.5</sub>	25 µg/m <sup>3</sup> year	6-8	10 µg/m <sup>3</sup> year	74-85
Ozone (O <sub>3</sub> )	120 µg/m <sup>3</sup> 8-hours	7-30	100 µg/m <sup>3</sup> 8-hours	95-98

# Percentages of the EU urban population exposed to air pollution concentrations above EU and WHO reference values during the period 2016-2018



Source: EEA, 2020. Healthy environment, healthy lives: how the environment influences health and well-being in Europe, p.68

# DALYs lost and economic cost of premature deaths as a result of air pollution (APMP+HAP), 2010

Country	Premature death	US\$ (millions)	% of GDP
France	16 892	53 295	2.3
Germany	41 582	144 715	4.5
Russian Federation	119 452	285 467	9.8



Source: WHO Regional Office for Europe, OECD, 2015

**Some groups** – e.g. older adults, children, pregnant women, people with an underlying disease, e.g. asthma – may be **more at risk**, and may develop **more severe health effects more quickly** when exposed to air pollution.

**Children** are **particularly vulnerable** to health effects (more time outside, higher respiratory rates, breathe larger volumes of air relative to their body weight; immune, respiratory and central nervous systems are not fully developed in infants)