

# Environmental Health, sustainable transport and the impact of COVID-19



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# Environment and health in Europe

06/17

**1.4 m**

1.4 million deaths in the WHO European Region are caused by environmental risks, corresponding to at least 15% of Europe's total deaths.

**50%**

Around half of these deaths are due to outdoor and indoor air pollution.

**50 m**

Altogether, European citizens annually lose 50 million years of healthy life due to environmental risks.

In Europe, environmental risk factors are responsible for around

**26% of ischemic heart disease**

**25% of strokes**

**17% of cancers.**

Cardiovascular deaths and diseases from environmental exposures are 3 times higher in lower-middle income countries than high-income countries.

Source: Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks. Geneva: WHO; 2016 ([http://www.who.int/quantifying\\_ghimpacts/publications/preventing-disease/env](http://www.who.int/quantifying_ghimpacts/publications/preventing-disease/env)).

# Cities: a dynamic context, constantly reshaped by multiple drivers at work simultaneously:

Economic development

Urbanization

Demographic change

Non-communicable diseases

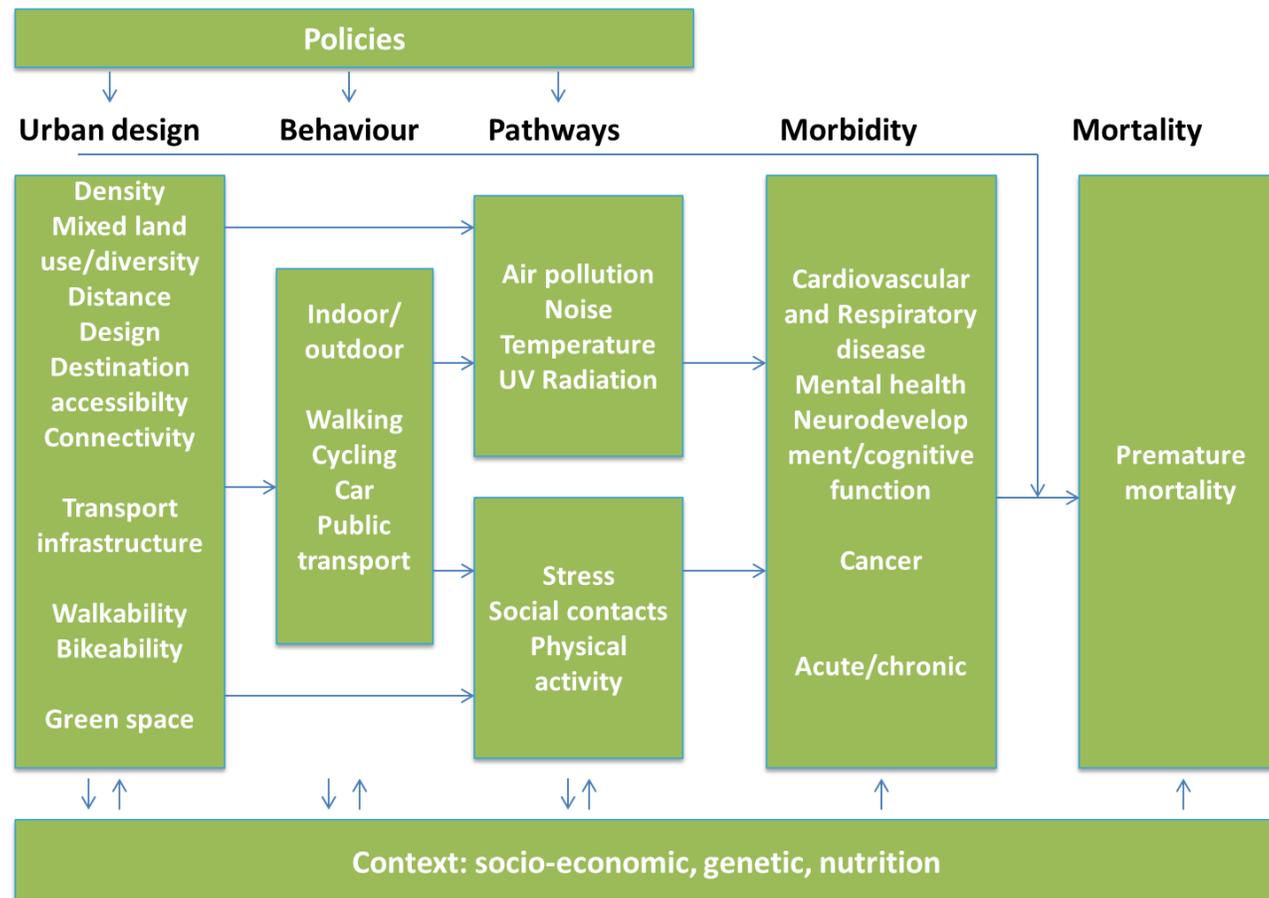
Migration

Climate and environmental change

Photo credit: Anastasiia Shotskaya



# Cities are the places, where "it comes all together"



M. Nieuwenhuijsen,  
Environ Health.  
2016;15(Suppl.1):3  
8:161-71

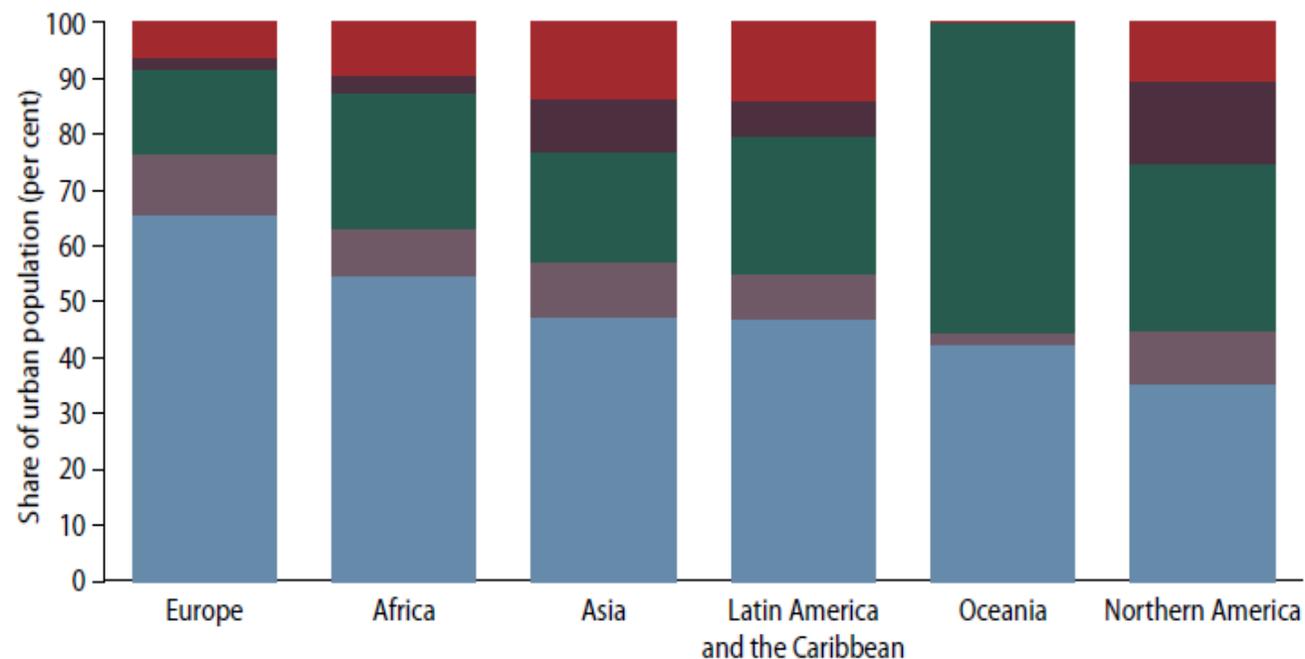
**By 2030, more than 80 % of Europeans will live in urban areas**

**Circa 90 % Europeans live in cities smaller than 5 million inhabitants and 65 % in urban areas smaller than 500 000**

United Nations, Department of Economic and Social Affairs, Population Division (2014).  
*World Urbanization Prospects: The 2014 Revision, Highlights (ST/ESA/SER.A/352).*

- Megacities of 10 million or more
- Large cities of 5 to 10 million
- Medium-sized cities of 1 to 5 million
- Cities of 500 000 to 1 million
- Urban areas smaller than 500 000

Population distribution by city size varies across major areas in 2014



# Where environmental health inequalities can affect you

## URBAN ENVIRONMENTS AND TRANSPORT

Air pollution  
Noise annoyance  
Fatal road traffic injuries  
Recreational or green areas  
Chemical exposure  
Contaminated sites

## HOUSING CONDITIONS

Flush toilet  
Bath or shower  
Overcrowding  
Dampness in the home  
Adequately warm  
Adequately cool

## BASIC SERVICES

Drinking-water  
Sanitation  
Energy poverty

## INJURIES

Fatal poisoning  
Fatal falls

## WORK SETTINGS

Fatal injuries  
Working environments



Source: Environmental health inequalities in Europe. Second assessment report (2019) <https://www.euro.who.int/en/publications/abstracts/environmental-health-inequalities-in-europe.-second-assessment-report-2019>

# The “black swan”: how COVID-19 is changing the urban environment and health agenda



# Environment and health areas brought to the fore by COVID-19 IN CITIES

***DURING*** THE CRISIS:

TWO PUBLIC HEALTH OBJECTIVES :

1. Hygiene
2. Physical distancing



- Make hand hygiene (HH) accessible for all
- Manage urban transport and mobility
- Manage the increased production of waste
- Access to urban nature and green spaces (link to mental health and physical activity)
- Housing and indoor conditions (enhanced impact through lockdowns)

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Ad  Neue Gleitsicht-Technik  
www.brillen.de

## Coronavirus: Boom time for bikes as virus changes lifestyles

By Roger Harrabin  
BBC environment analyst

7 May 2020 49

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Coronavirus pandemic



<https://www.bbc.com/news/business-52564351?ocid=wsnews.chat-apps.in-app-msg.whatsapp.trial.link1...auin>

Photo credit: F. Racioppi

# Moving around during the COVID-19 outbreak



Whenever feasible, consider riding bicycles or walking.

This provides physical distancing while helping you to meet the minimum requirement for daily physical activity, which may be more difficult due to increased teleworking, and limited access to sport and other recreational activities.



## ACTIVE MOBILITY AND COVID-19: the individual perspective

- Provides access while **maintaining physical distance**;
- Helps meeting minimum requirements for daily **physical activity**;
- Highly **feasible** (more than 50% of car trips are shorter than 5 km)
- Helps **reducing the need for private motorized transportation** as an alternative to public transport

# Environment and health areas brought to the fore by COVID-19 IN CITIES

## ***AFTER THE CRISIS:***

### PUBLIC HEALTH OBJECTIVES:

1. Increase Urban resilience
2. Address systemic failures
3. Reduce inequalities



- Consolidate the lessons learnt through lock-downs
- Rethink urban and transport planning
- Reduce air pollution
- Value urban nature and green/blue spaces
- Housing and indoor conditions
- Climate change

# ACTIVE MOBILITY AND COVID-19: the societal perspective

- Strengthening **urban resilience**, notably by reducing pressure on public transport. Needs to be supported by:
  - Interventions to provide safe infrastructure;
  - Policies and financial instruments to facilitate sustainable mobility and teleworking;
  - Flexible entry and exit timetables to reduce “peak hours” occupancy of public transport
  - Home deliveries
  - Access to services, goods and amenities “in proximity”
- Achieving environmental objectives
  - Air quality, noise, **climate change**, land consumption, public space use, congestion, urban deterioration
- Quality of urban life
- Intergenerational solidarity



Supporting healthy  
urban transport  
and mobility in the  
context of COVID-19



Œuvrer pour la santé dans  
les transports urbains et la  
mobilité dans le contexte  
de la COVID-19



g  
verträglicher  
nahme und  
Städten unter den  
Bedingungen von COVID-19



по развитию  
здоровья  
транспорта  
и средств передвижения в  
контексте COVID-19

# Breaking (good) news!

**THE CONVERSATION**  
Academic rigour, journalistic flair

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**Cycling is ten times more important than electric cars for reaching net-zero cities**

March 29, 2021 3:59pm BST

Michael Wheatley/Alamy Stock Photo

Email  
Twitter 559  
Facebook 9.4k  
LinkedIn

Globally, only one in 50 new cars were fully electric in 2020, and one in 14 in the UK. Sounds impressive, but even if all new cars were electric now, it would still take 15-20 years to replace the world's fossil fuel car fleet.

The transition begins from replacing all these internal combustion engines with  
Title of the presentation

15/04/2021

## Bloomberg Green

Energy & Science

# Switching From Cars to Bikes Cuts Commuting Emissions by 67%

Travel emissions would fall significantly even if only a small percentage of citizens chose two wheels over four.

By [Laura Millan Lombrana](#)

March 31, 2021, 12:30 PM GMT+2 Updated on March 31, 2021, 12:48 PM GMT+2



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# Breaking (good) news!

Cycling, e-biking and walking can help tackle the climate crisis – even if you swap the car for active transport just one day a week

- The first international study of the carbon-reducing impact of city-based lifestyle changes.
- The study followed nearly 2,000 urban residents over time:
  - those who switch **just one trip per day** from car-driving to cycling reduced their carbon footprint by about 0.5 tonnes over a year.
  - If just 10% of the population were to change travel behaviour in this way, the emissions savings would be around 4% of lifecycle CO<sub>2</sub> emissions from all car travel.

The study addresses one of the ‘urban myths’ of transport – trips made by walking and cycling are often considered to be **additional** to motorised travel, rather than replacing it. However, we found that **active travel substitutes for motorised travel.**

SOURCE: <https://authors.elsevier.com/a/1cV3b3Q8oQ9QDU>



Global Environmental Change

Volume 67, March 2021, 102224



## The climate change mitigation impacts of active travel: Evidence from a longitudinal panel study in seven European cities

Christian Brand <sup>a,\*,</sup>, Thomas Götschi <sup>b,</sup>, Evi Dons <sup>c,d,</sup>, Regine Gerike <sup>e,</sup>, Esther Anaya-Boig <sup>f,</sup>, Ione Avila-Palencia <sup>g,h,</sup>, Audrey de Nazelle <sup>f,</sup>, Mireia Gascon <sup>g,i,j,</sup>, Mailin Gaupp-Berghausen <sup>k,</sup>, Francesco Iacorossi <sup>l,</sup>, Sonja Kahlmeier <sup>m,n,</sup>, Luc Int Panis <sup>c,d,e,</sup>, Francesca Racioppi <sup>o,</sup>, David Rojas-Rueda <sup>g,q,</sup>, Arnout Standaert <sup>c,</sup>, Erik Stigell <sup>r,</sup>, Simona Sulikova <sup>a,</sup>, Sandra Wegener <sup>p,</sup>, Mark J. Nieuwenhuijsen <sup>g,i,j</sup>

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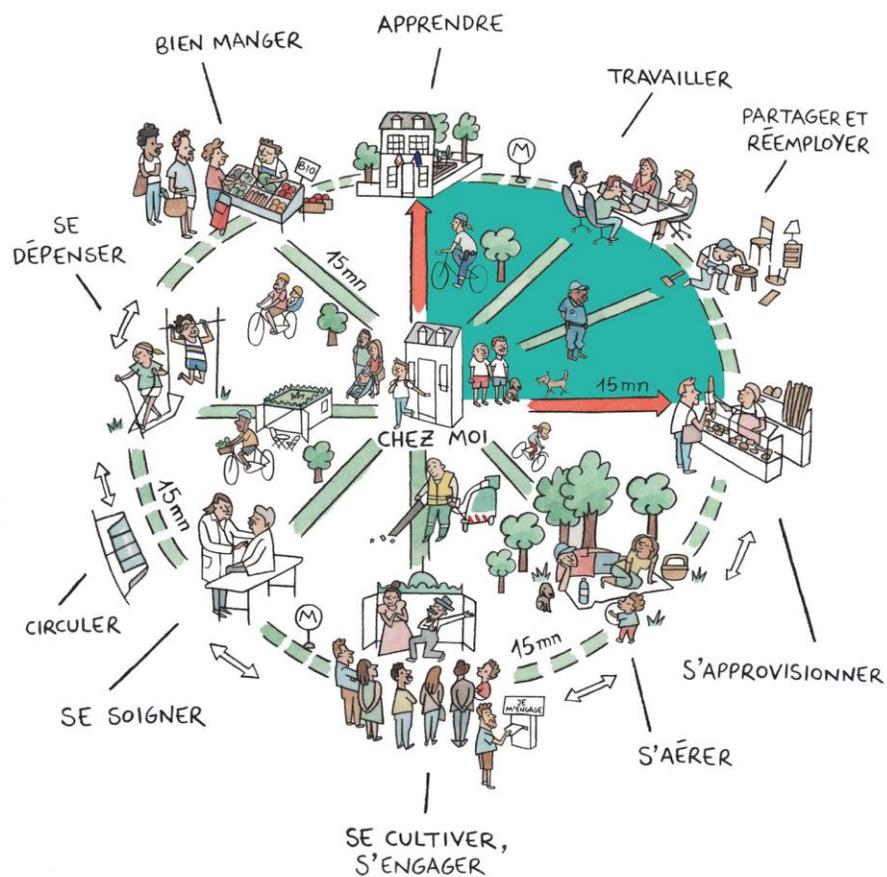
<https://doi.org/10.1016/j.gloenvcha.2021.102224>

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### Highlights

- First study of lifecycle carbon emissions effects of changes in active travel in cities.

LE PARIS DU 1/4 HEURE



MICAËL

# Cities of proximity

Rethinking urban spaces to increase resilience and sustainability goes hand in hand with rethinking transport and mobility

# WHO – global and regional resources to support action for sustainable mobility in cities

# The WHO Manifesto aims to:

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 healthy energy transition

Promote healthy, sustainable food systems

Build healthy, livable cities

Stop using taxpayers money to fund pollution



**Prescriptions and Actionables for a Healthy and Green Recovery**





## 6<sup>th</sup> Ministerial Conference on Health and Environment (Ostrava, 2017)

- Improve air quality for all
- Ensure access to safe drinking water, sanitation and hygiene for all
- Minimize the adverse effects of chemicals
- Prevent and eliminate the adverse effects of waste management and contaminated sites
- Strengthen adaptation to and mitigation of climate change
- **Support cities and regions to become healthier**
- Build the environmental sustainability of health systems

# Towards a European Masterplan for cycling promotion – 17-18 May 2021

## Objectives for 2030

- Double cycling in the region and increase it in every country
- Increase the safety of cyclists and halve the rate of fatalities and serious injuries
- Integrate cycling into health policies
- Integrate cycling, including cycling infrastructure, into land use, urban and regional planning

26 out of  
56  
countries  
involved

**Cycling - an equal mode of transport!**



# Health Economic Assessment Tool (HEAT) for walking and cycling



**In conclusion:  
Let's build forward better!**

**[www.euro.who.int/en/health-topics/environment-and-health](http://www.euro.who.int/en/health-topics/environment-and-health)**

**[euceh@who.int](mailto:euceh@who.int)**



Photo credit: F. Racioppi