

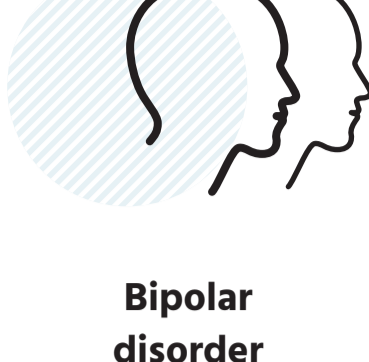
# MENTAL HEALTH

An integral and fundamental element of health

## MENTAL HEALTH DISORDERS INCLUDE:



Depression



Bipolar disorder



Psychoses – such as schizophrenia

## MENTAL HEALTH IN POLAND AND IN THE WORLD



Around **3.8%** of the world's population (280 million people) are affected by depression.

Mental health problems affect **20%** of children and adolescents in the world.



**1.5 million** Polish citizens are diagnosed with depression (almost as many as the population of Warsaw).



People with **lower economic status** are more vulnerable to mental health problems.

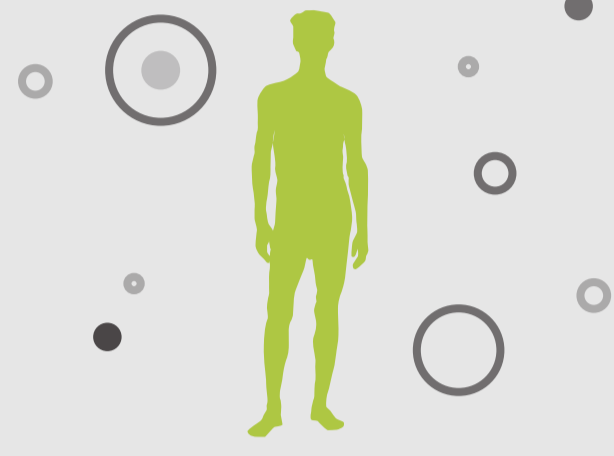
## RISK FACTORS FOR MENTAL HEALTH

### INDIVIDUAL FACTORS



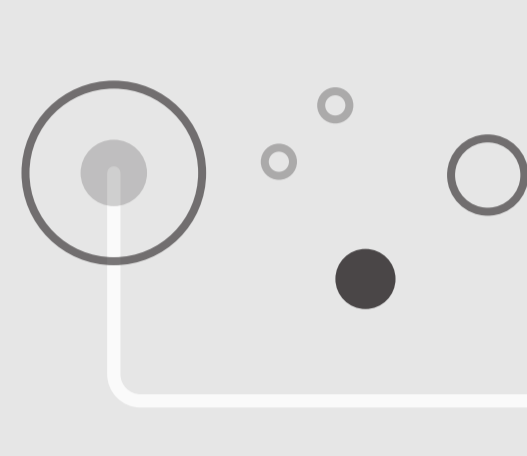
Individual ability to cope with thoughts, emotions, behaviours or interpersonal contacts.

### EXTERNAL FACTORS



Social, cultural, economic and political factors.

### ENVIRONMENTAL FACTORS



The environment in which we live, including where we live, how cities are designed.

## AIR POLLUTION: AN EMERGING RISK FACTOR FOR THE MENTAL HEALTH OF CITY RESIDENTS

### Air pollutants (PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>2</sub>, O<sub>3</sub>, PAHs and CO)

Air pollution is being investigated by scientists as an **emerging risk factor** for mental health.

A systematic review of 39 studies and a meta-analysis carried out in 2021 indicates that there is a **link between depression and long-term exposure to PM<sub>2.5</sub> particulate matter** and short-term exposure to other pollutants such as: particulate matter with diameter  $\leq 10 \mu\text{m}$  (PM<sub>10</sub>) and  $\leq 2.5 \mu\text{m}$  (PM<sub>2.5</sub>), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), ozone (O<sub>3</sub>) or carbon monoxide (CO)<sup>1</sup>.

The results of the analysis carried out on two datasets (151 million people from the USA and 1.4 million people from Denmark) indicate a significant **association between exposure to air pollution and the risk of neuropsychiatric disorders**<sup>2</sup>.

The Scientific Commission of the medical journal "The Lancet" identified air pollution as **one of the risk factors for dementia**<sup>3</sup>.

### Climate change

**Heat waves** can lead to stress and deterioration of health in people who already have mental disorders.

**High temperatures** can cause an increase in interpersonal aggression, which can lead to acts of violence.

Heat is particularly severe in cities due to the phenomenon of the **so-called urban heat island**.

### Urbanisation (development, population density, light)

- Over-stimulation from the environment;
- No space for physical activity;
- Lack of space to play, entertain, or develop social life.

**All this can cause stress, aggression, impaired cognitive development.**

### Noise (from road transport or industry)

causes irritation, problems with sleep, and even cognitive problems (e.g. with concentration).

### The city environment can be a factor in supporting mental health and building the mental resilience of residents.

**Green and blue areas** (i.e. parks, rivers, ponds, lakes, etc.).

**Squares, parks, public space** for social activity, volunteering, entertainment.

Time spent in nature helps to cope with chronic stress, fatigue, reduces the symptoms of anxiety and depression, and strengthens emotional well-being, lowers cortisol levels and blood pressure.



Space for **physical activity** (preferably among greenery).



Safe and attractive **hiking and cycling trails**.

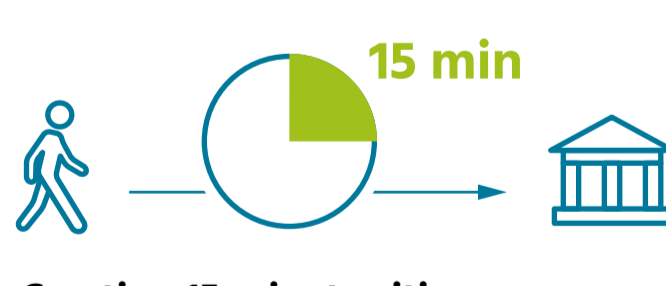


## WE CAN CREATE MENTAL HEALTH-FRIENDLY CITIES BY:

Creating **areas without traffic** (or with significant traffic restrictions).



**Creating 15-minute cities** – basic needs such as a school or shopping take place in a 15-minute walk or a bike ride range.



**Building pollution measurement stations.**



Promoting, developing and rewarding **zero-emission mobility**, i.e. cycling and walking.



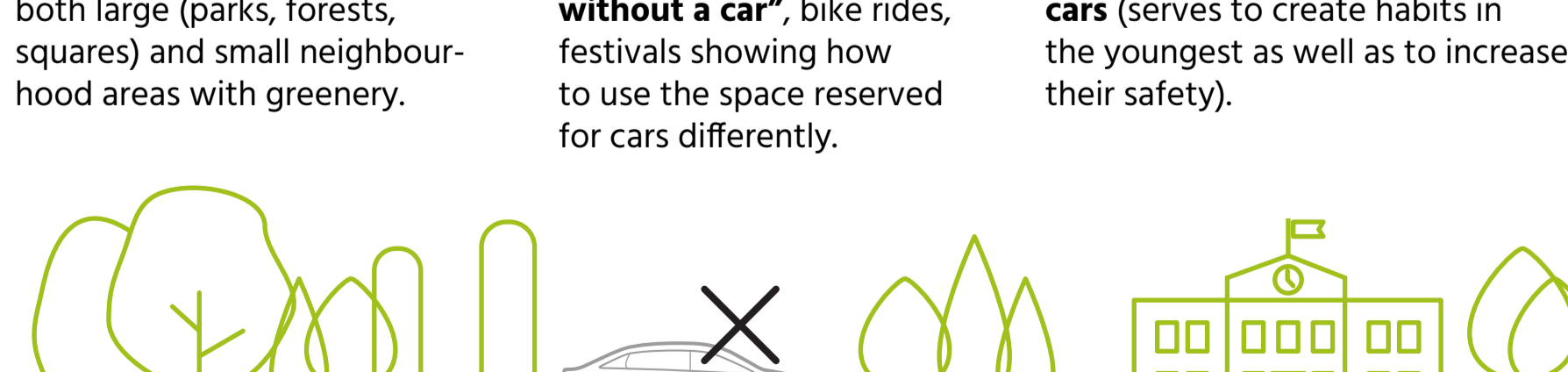
**Investments in public transport accessible to all**, which prevents exclusion and provides access to greenery and social life for all residents.



**Taking care of green areas**, both large (parks, forests, squares) and small neighbourhood areas with greenery.

**Organising "days without a car"**, bike rides, festivals showing how to use the space reserved for cars differently.

**Creating school streets without cars** (serves to create habits in the youngest as well as to increase their safety).



This infographic is informative and discusses only selected issues related to mental health. If you are looking for mental health support, **contact a mental health professional** (psychiatrist, psychologist or psychotherapist) or your GP.



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### Sources:

1. <https://www.sciencedirect.com/science/article/pii/S0269749121019273#appsec3>
2. <https://journals.plos.org/plosbiology/article?id=10.1371%2Fjournal.pbio.3000353>
3. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30367-6/fulltext?inf\\_contact\\_key=779905f3c1735bf89533cb79fb3e8eaf651f238aa2edbb9c8b7cff03e0b16a0](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30367-6/fulltext?inf_contact_key=779905f3c1735bf89533cb79fb3e8eaf651f238aa2edbb9c8b7cff03e0b16a0)