



NACIONĀLAIS PSIHISKĀS  
VESELĪBAS CENTRS

# How alcohol affects mental health issues?

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# There is no health without mental health



World Health  
Organization

Mental health is a  
fundamental and  
integral  
component of  
overall health

It is a state of  
complete physical,  
mental and social  
well-being, and not  
merely the  
absence of  
disease

Mental health is a  
state of well-being in  
which an individual  
realizes their own  
potential, can cope  
with the normal  
stresses of life, can  
work productively,  
and is able to  
contribute to their  
community

Good mental health  
at both the individual  
and societal level is  
an essential  
precondition for  
building a stable,  
safe and prosperous  
society

# Mental health and related issues in the general population

Mental health  
problems before the  
pandemic

1 in 6

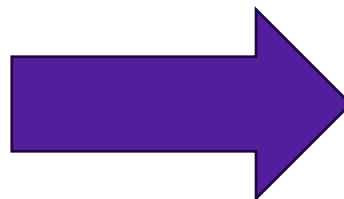
- ❖ Anxiety disorders (5,4%)
- ❖ Depressive disorders (4,5%)
- ❖ Alcohol and drug use disorders (2,4%)



Depression,  
anxiety



Completed suicide



Mental health  
problems after  
the pandemic (June  
2023)

1 in 2

**At risk:** young people,  
and those with  
previous history of  
mental disorders

# Mental health and related issues in the general population



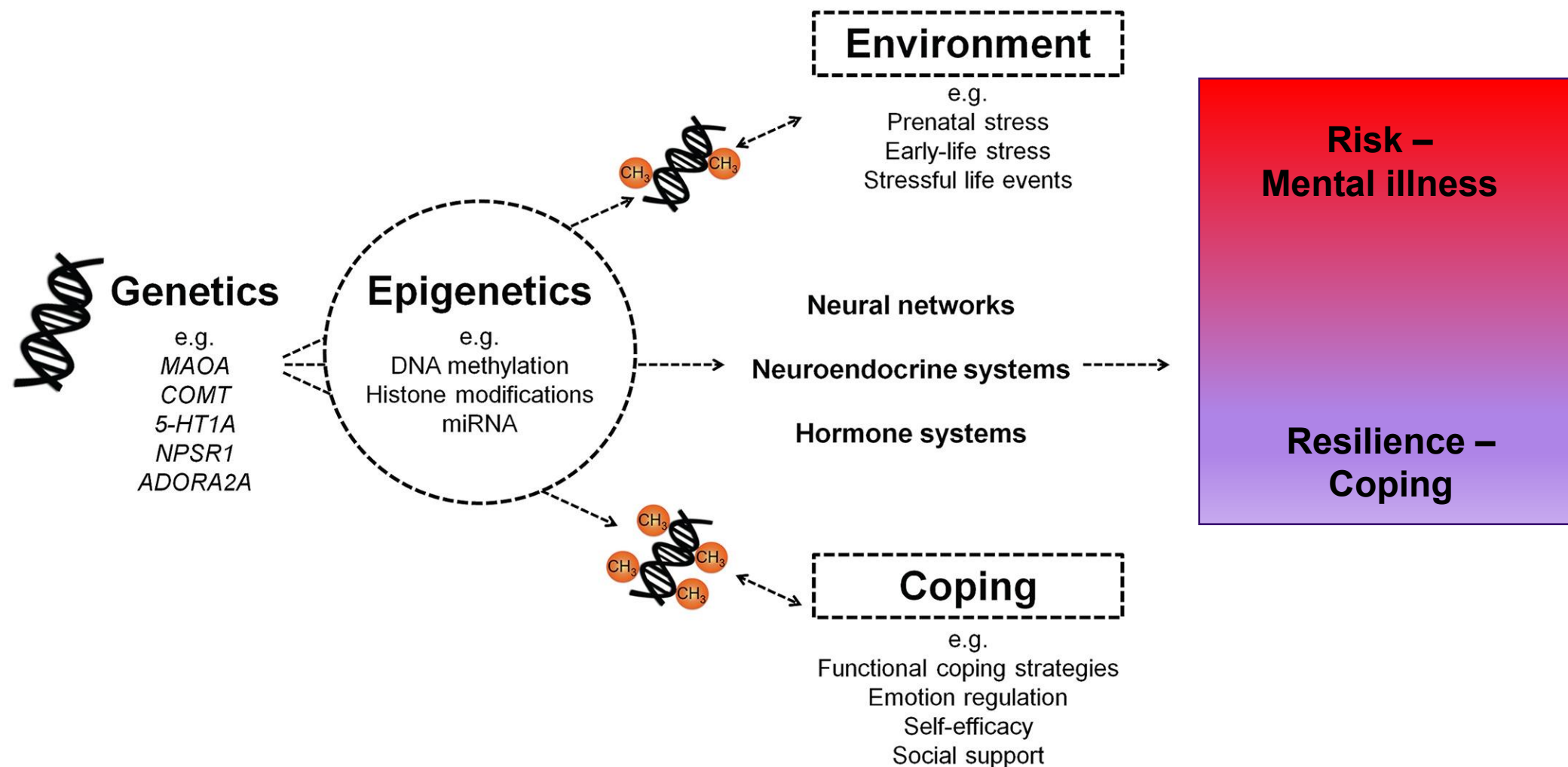
4.1% of all deaths in the EU in 2022 resulted from mental and behavioural disorders

Dementia was the most common cause of death from mental and behavioural disorders in the EU

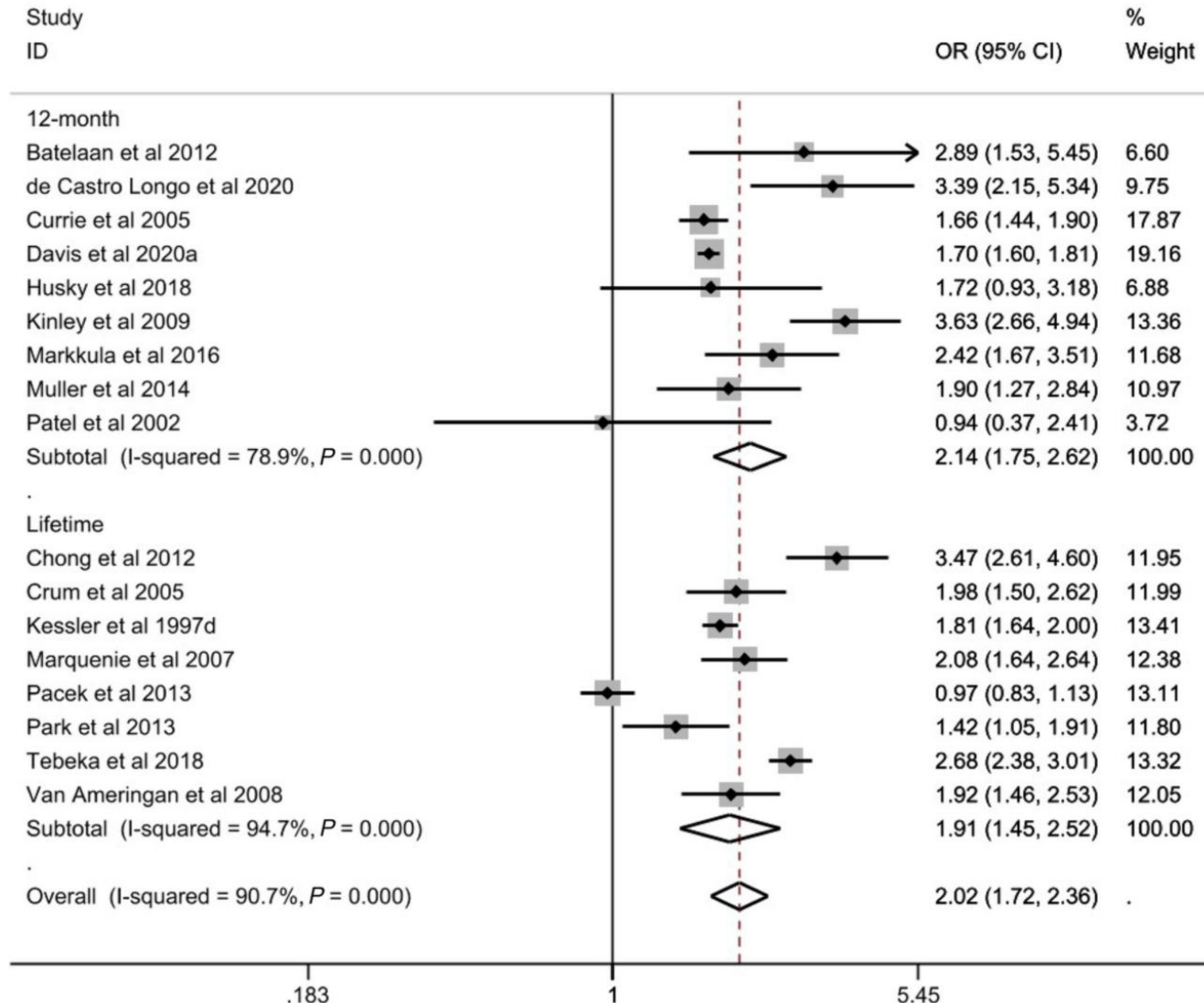
The 2nd leading cause of death from mental and behavioural disorders across the EU in 2022 was due to the use of alcohol

# Genes – Stress – Coping

Model of mental health (mental illness)



# Associations of common mental disorder with alcohol use in the adult general population: a systematic review and meta-analysis



People with common mental disorders (depression, anxiety, phobia) **are twice as likely** to report an alcohol use disorder than people without common mental disorders

# Etiological theories: what comes first?

Mental health disorders cause alcohol use

Alcohol use cause mental disorders

Shared neurological and psychosocial  
vulnerabilities



# How mental health disorders lead to alcohol use

## Self-medication pathway

People with depression, anxiety, PTSD, or psychotic symptoms may use alcohol to relieve distressing emotions, intrusive thoughts, or physiological arousal

## Increased vulnerability due to neurobiological changes

Mental disorders can alter stress-response systems (HPA axis) and reward pathways, increasing craving and the reinforcing effects of alcohol

Disorders such as depression, anxiety, and personality disorders reduce adaptive coping skills → higher reliance on alcohol for short-term relief.

## Impaired coping and emotion regulation

Isolation, unemployment, and conflict related to mental illness increase stress and perceived need for alcohol as a coping tool.

## Social and functional impairment



# High-risk domains

- ❖ **Anxiety disorders:** alcohol used to reduce somatic tension (leads to dependence)
- ❖ **Depressive symptoms:** alcohol used for mood elevation or emotional numbing
- ❖ **PTSD:** alcohol used to manage hyperarousal and intrusive memories
- ❖ **Psychotic disorders:** substance use as a maladaptive strategy to control voices or paranoia
- ❖ **ADHD / impulse-control disorders:** impulsivity increases rapid escalation to harmful use

# How alcohol use causes mental disorders

## Direct neurotoxic effects on the brain

Alcohol use disrupts GABA, glutamate, dopamine, and serotonin systems → leading to mood, anxiety, sleep, and cognitive disorders

## Alcohol-induced mood, anxiety disorders

Sustained heavy use increases the risk of developing primary depressive and anxiety disorders (not only temporary intoxication/withdrawal effects)

Heavy or prolonged use can trigger hallucinations, delusions, states of clouded consciousness; recurrent episodes increase long-term vulnerability to psychosis

## Alcohol-induced psychotic disorder

Alcohol increases impulsivity and hopelessness, significantly raising risk for suicidal thoughts and behaviours

## Elevated risk of suicidality

# How alcohol use and mental health disorders share the same underlying risks

## Shared biological vulnerabilities

- ❖ Shared genetic factors (impulsivity, aggression, novelty seeking) explain up to 40% of genetic variance in alcohol dependence
- ❖ Brain systems involved in reward, stress, and emotion regulation overlap in AUD, depression, PTSD, BPD

## Trauma as a common root cause

- ❖ High trauma exposure among psychiatric populations (up to 90% in SMI)
- ❖ Trauma strongly linked with both AUD and PTSD; shared brain changes in amygdala and hippocampus

# How alcohol use and mental health disorders share the same underlying risks

## Dysregulated stress and fear circuitry

- ❖ Altered HPA-axis function contributes to both AUD and anxiety/PTSD.
- ❖ Amygdala hyperreactivity + impaired medial prefrontal cortex (mPFC) regulation seen in both disorders.
- ❖ Stress increases alcohol reinforcement and compulsive drinking

## Environment and life circumstances

- ❖ Poverty, social isolation, violence, and unstable living conditions raise the risk of both alcohol use problems and mental disorders.
- ❖ Stressful environments and alcohol reinforce each other, creating a harmful cycle.

# Conclusions

**Alcohol use and mental health disorders are closely connected,**

- They frequently occur together and reinforce each other

**Both share common risk factors**

- Genetics, trauma, stress, and social disadvantage increase vulnerability to both conditions

**Effective responses must address both**

- Integrated, trauma-informed, and prevention-focused approaches improve outcomes

Thank you!

