

# Personalized prevention: *what it means and why it matters for patients*

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**«Right to Innovation: Understanding  
Personalized Prevention»**

Tuesday, 10 March 2026

# Personalized prevention: *what it means and why it matters for patients*

- The challenge of chronic diseases
- The importance of prevention
- What personalized prevention is
- Examples of personalized strategies
- A European initiative: **PROPHET**

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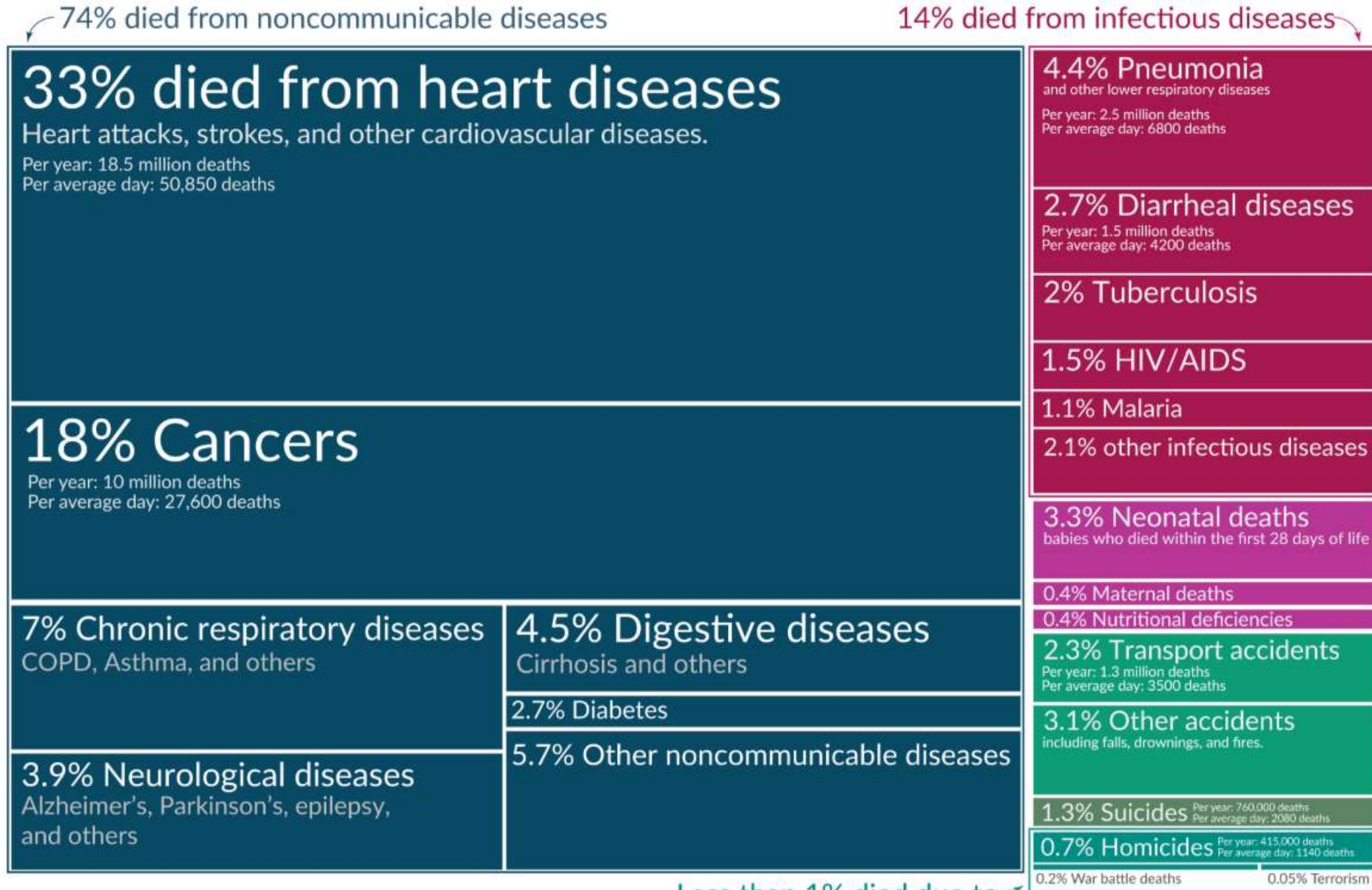
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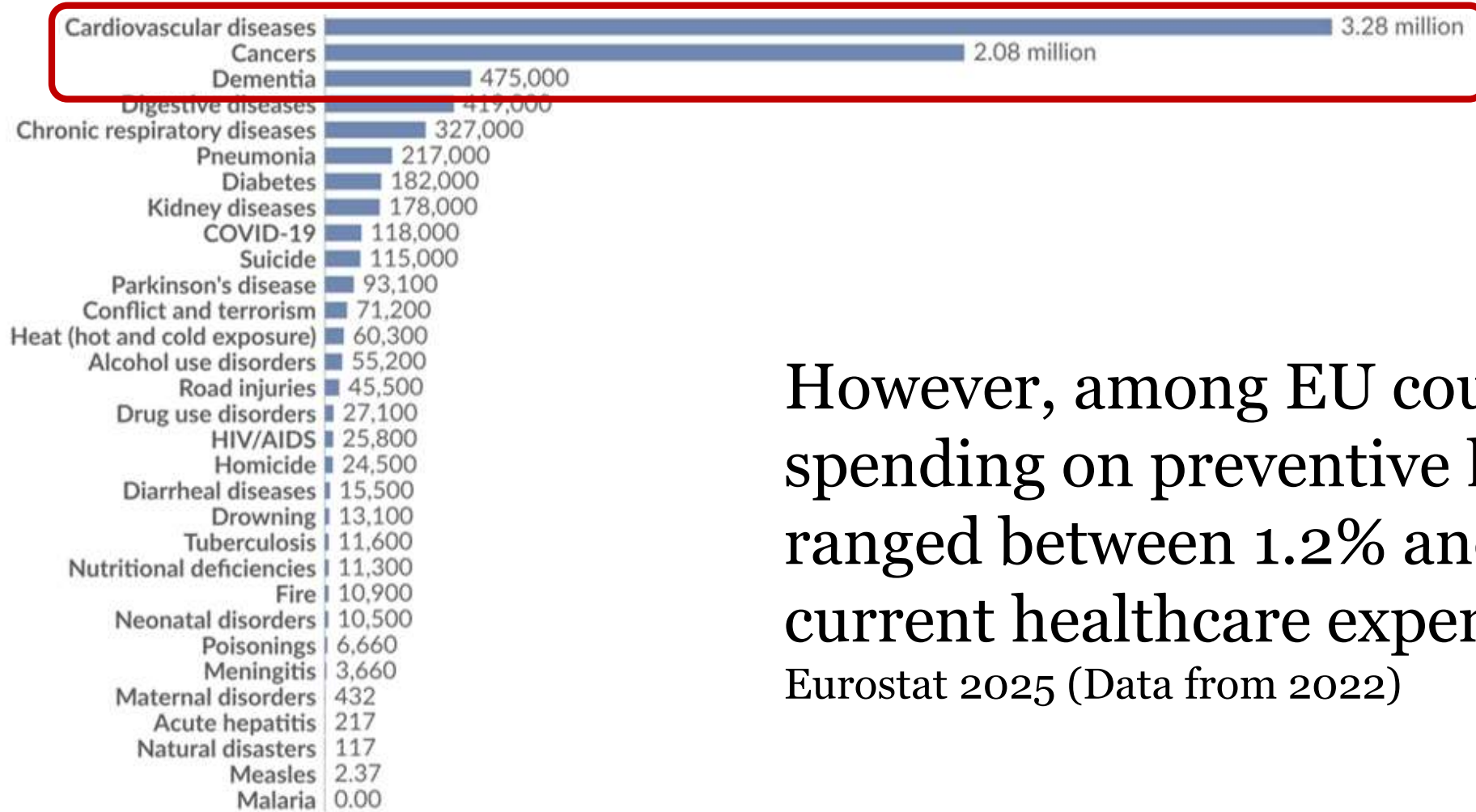
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# The burden of chronic diseases worldwide (2019)



# The burden of chronic diseases in Europe (2023)

## Causes of Death, Global Burden of Disease Study (GBD)



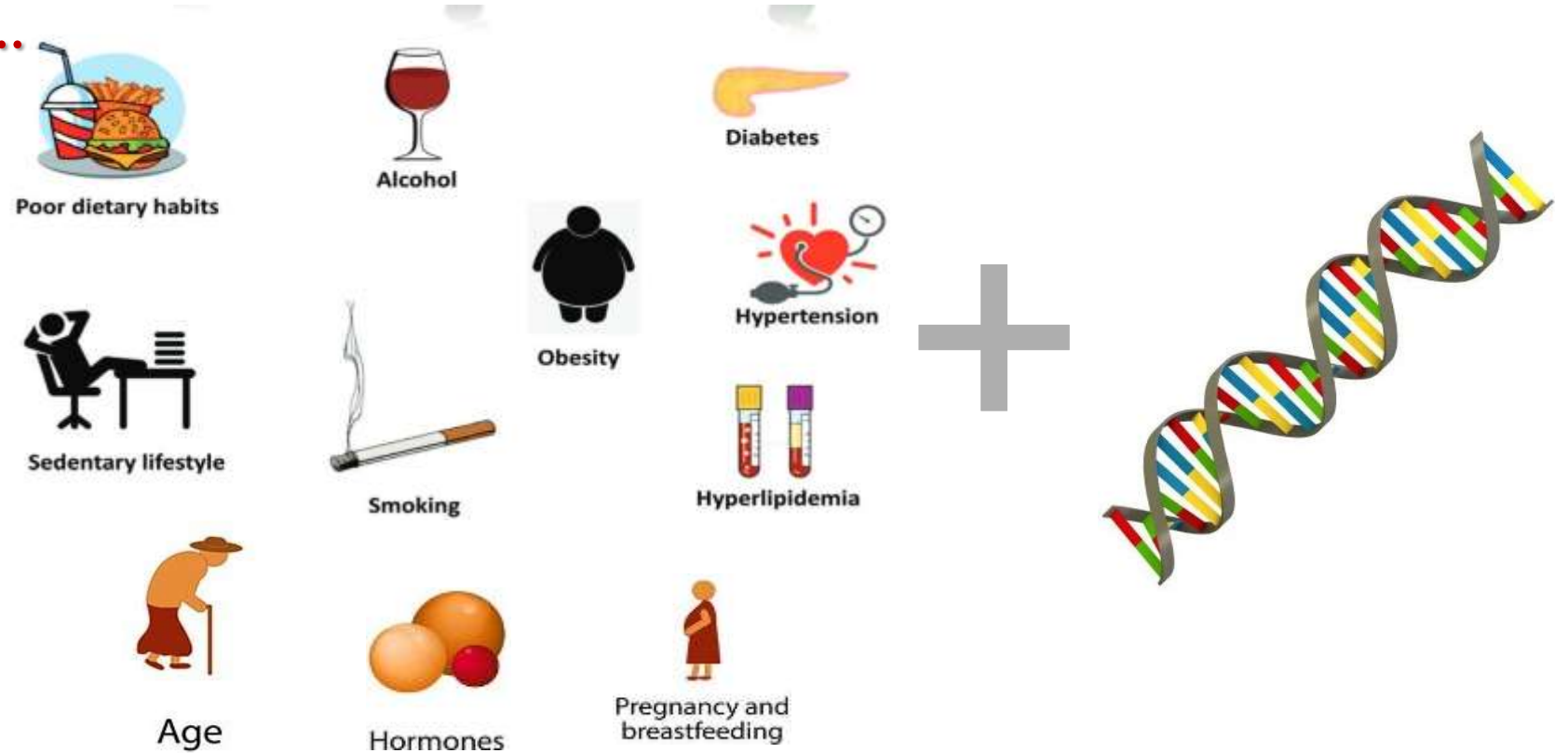
However, among EU countries, spending on preventive healthcare ranged between 1.2% and 7.9% of current healthcare expenditure. Eurostat 2025 (Data from 2022)

# The complexity of chronic diseases

**CHRONIC DISEASES ARE  
MULTIFACTORIAL...**

**RISK OF  
DISEASE**

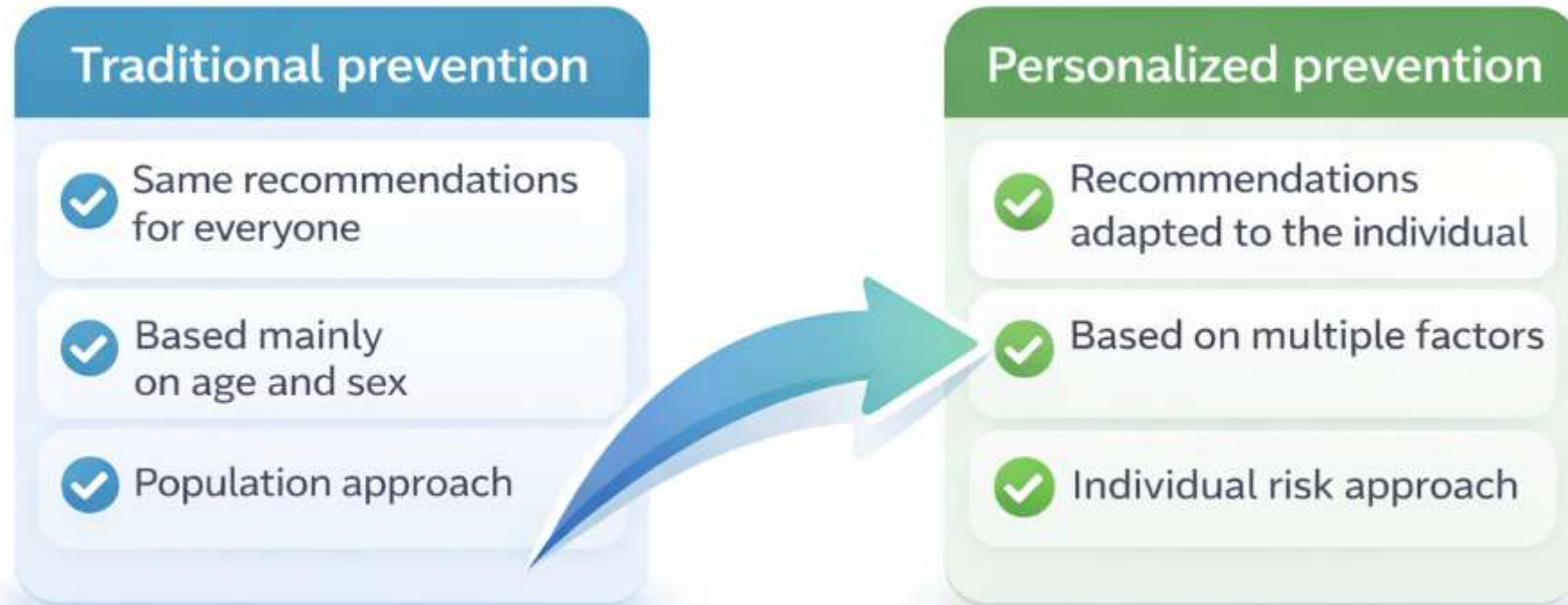
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**...AND WE ALL HAVE DIFFERENT RISK  
FACTORS**

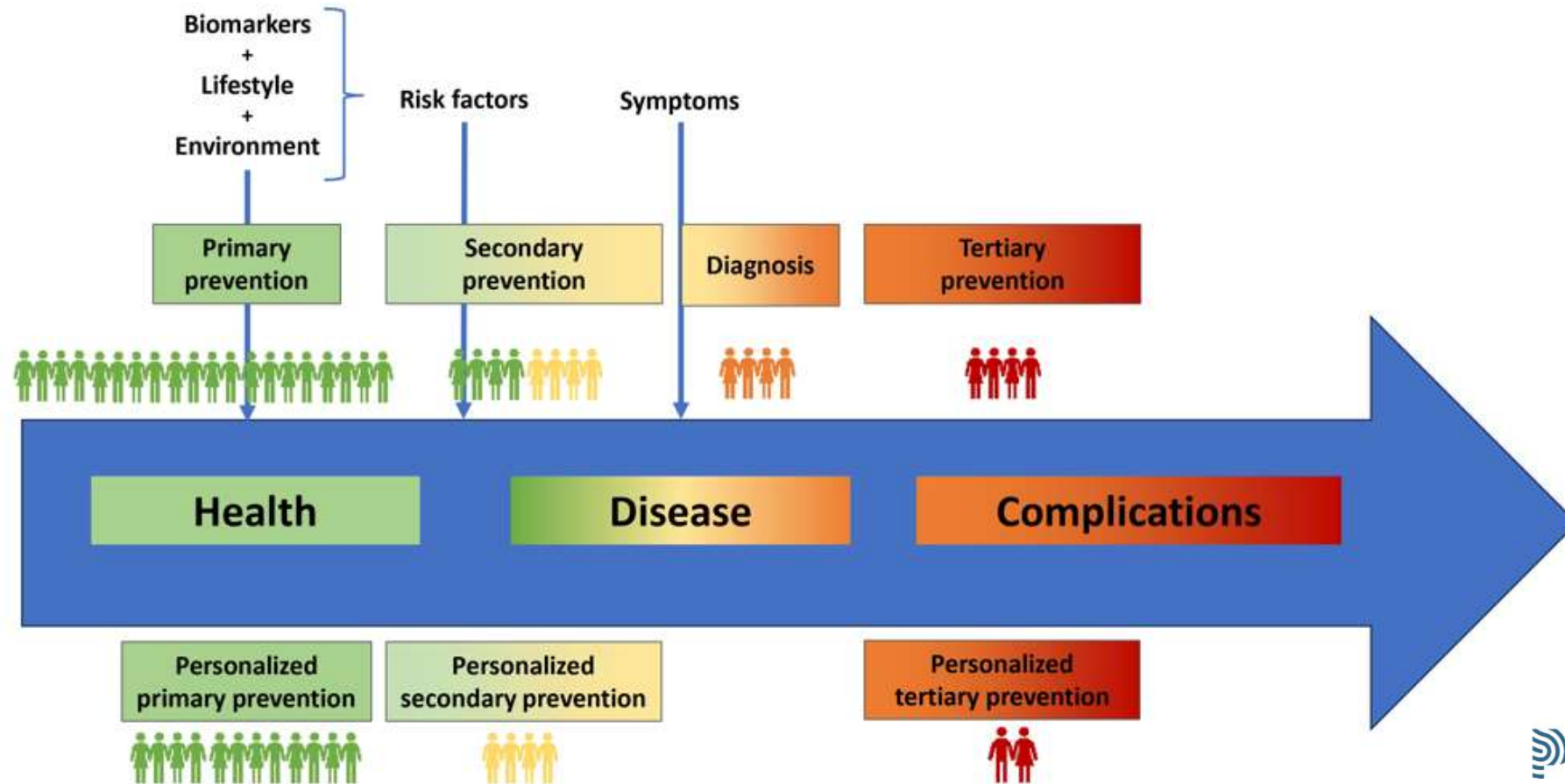
# From traditional to personalized prevention

Prevention already exists and plays a key role in public health, but it is not always equally effective for everyone.



# Definition of personalized prevention

«**Personalized prevention** aims to prevent onset, progression and recurrence of diseases through the adoption of **targeted interventions** that consider the **biological information, environmental and behavioral characteristics, socio-economic and cultural context of individuals**. This should be **timely, effective and equitable** in order to maintain the best possible balance in lifetime health trajectory.»



# Examples of personalized prevention strategies

## PRIMARY PREVENTION



1. using genomic information (e.g. polygenic risk score) to understand who has a higher cardiovascular risk
2. identifying people with higher risk compared with the general population
3. lifestyle intervention (healthy behavior, physical activity, diet)

## SECONDARY PREVENTION



1. genetic testing (*BRCA1-2*) in people with family history of breast cancer
2. identifying people with higher individual breast cancer risk
3. adapting screening strategies (starting earlier or more frequent check-up)

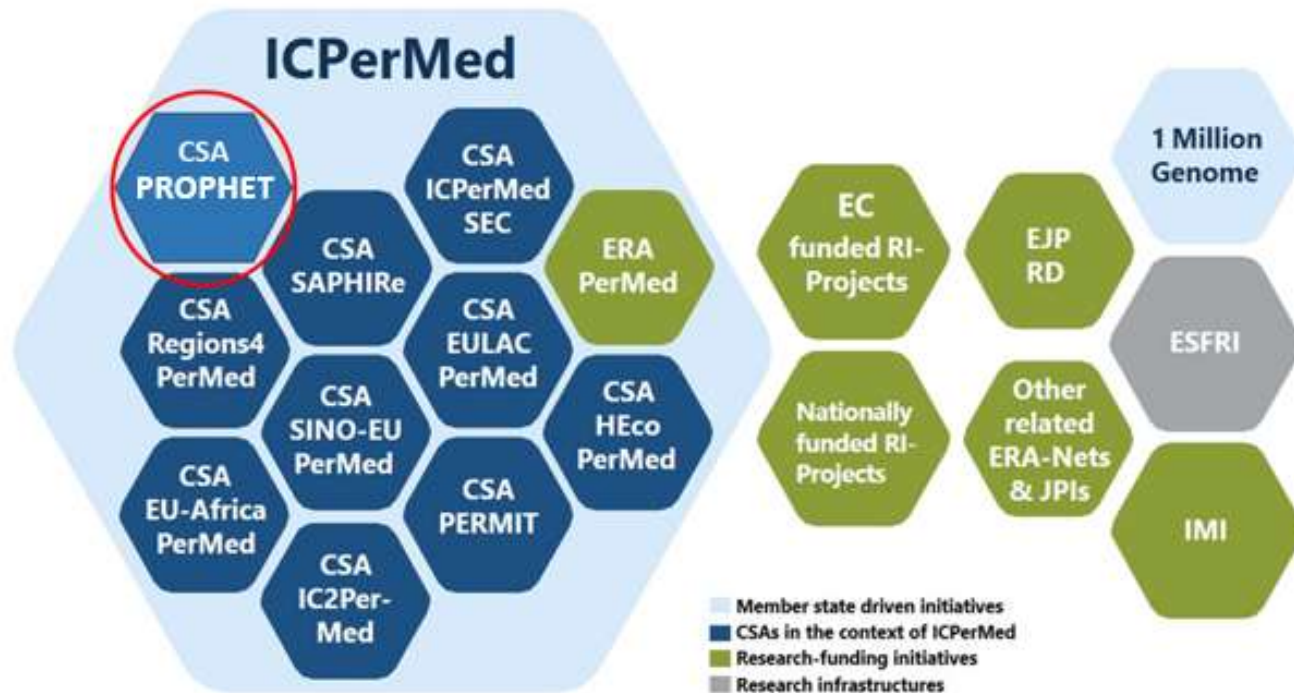
## TERTIARY PREVENTION



1. using genetic tests (e.g. pharmacogenomics) to guide treatment choices
2. choosing the most effective drug and dosage for each patient
3. prevention of adverse events and recurrence (e.g. infarction or cancer)

# The PROPHET Project

The overall objective of **PROPHET** is co-create with stakeholders a **Strategic Research and Innovation Agenda (SRIA)** and a **Roadmap** for the future healthcare, in order to support the definition and implementation of **innovative, sustainable and high-quality personalized strategies** that are effective in preventing chronic diseases.




- **European Union: Horizon - CSA Staying Healthy (2021) (HORIZON-HLTH-2021-STAYHLTH01)**
- **Consortium: 18 partners**
- **Starting Date : September 1<sup>st</sup> , 2022**
- **Duration : 48 months Budget : €3,000,000**





# The SRIA e Roadmap Project



The SRIA defines **10 challenges** and priorities on scientific, ethical, societal, organizational, policy dimensions.


 **Challenge 1 : The broad scope of promotion and prevention**


 **Challenge 2: Continuous evidence synthesis system supporting personalised prevention**

 **Challenge 3: The PROPHEt Framework implementation**

 **Challenge 4: Data collection & integration, & Data Infrastructure**

 **Challenge 5: Community Engagement and trust**

 **Challenge 6 : Health Professionals and Policy Makers involvement**

 **Challenge 7: Regulatory aspects and synergy with private sector**

 **Challenge 8: Access, Equity and Coverage**

 **Challenge 9: Ethical, Legal, Social Issues (ELSI)**

 **Challenge 10: Changing behaviour**



The **Roadmap** translates the *challenges* into **concrete actions**, defining timelines, responsible actors and measurable outcomes.

The **PROPHEt** project provides a **structured guide** to support European healthcare systems in implementing personalized prevention.



# Take-home messages

- **Chronic diseases** are a **major challenge** for our societies.
- However, **investment** in prevention is still **insufficient**.
- Personalized prevention can help **adapt prevention to each person**.
- In Europe, initiatives such as **PROPHET** are supporting the transition toward **effective, equitable and sustainable personalized prevention**.

*Personalized prevention does not replace population prevention, it complements it.*



***Thank you for the attention!***



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