

About DynaHEALTH

DynaHEALTH is a European research project addressing the challenge of healthy and active ageing through reducing the risks of obesity and type 2 diabetes (T2D). This four-year project is funded by Horizon 2020 and coordinated by the University of Oulu.

DynaHEALTH involves 14 partners from Finland, Denmark, Germany, Spain, The Netherlands and the United Kingdom. The project team brings together expertise from both academia and industry, in:

- Epidemiology
- Developmental biology
- Clinical Nutrition
- Physiology
- Genetics
- Epigenetics
- Metabolomics
- Biostatistics
- Brain imaging
- Health Care
- Econometrics
- European Policy and Knowledge Management.

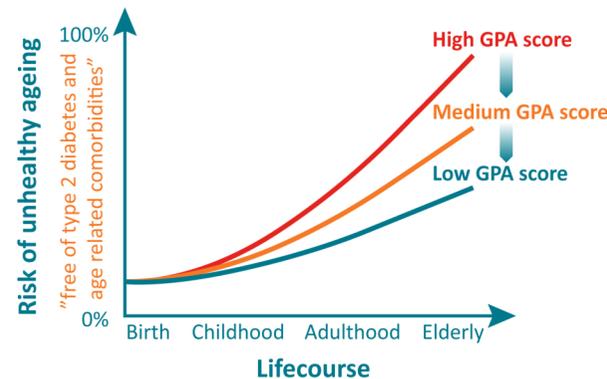
DynaHEALTH is using a unique approach to collaborative research involving data from ongoing national birth cohorts, large-population/register-based follow-up, ageing cohorts and a randomised control trial. The project has access to 20 cohorts with data on around 1.3 million participants in eight European countries.

Our Novel Concept

Addressing the specific need for "personalised healthcare", DynaHEALTH aims to develop a dynamic life course model to better understand and characterise the combined effects of glucose metabolism and psychosocial stress, which have an impact on the health and working ability of individuals as they age.

Our novel concept, the Gluco-Psychosocial Axis, or GPA, incorporates the factors and pathways determining glucose metabolism and insulin sensitivity with the neuroendocrine response to psychosocial stress into a single health indicator.

GPA health indicator



Exploring how glycaemic health and psychosocial factors interact and vary throughout the life course will help identify optimal time periods in which to target interventions.

Expected Impact

The current and emerging findings will converge and substantiate the development of tools and technologies for personalised healthcare and a dynamic life-course model based on GPA status. These outputs, supported by econometric studies within DynaHEALTH, will also enable the development of evidence-based policy recommendations.

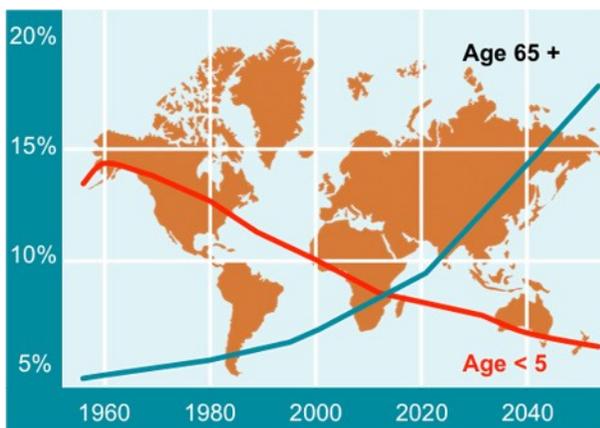
The recommendations, validated by robust research, have the potential to influence the future direction of European healthcare policy-making, through personalised medicine and informed interventions during the life-course, to address the future economic and societal burden of obesity and T2D.

Pathways to impact



The Challenge

According to the World Health Organization by 2020, the number of people aged 65 or older will outnumber children aged under 5. (See figure below). An increase in life expectancy over the last century has led to a shift in the leading causes of disease and death. Non-Communicable Diseases (NCDs) such as T2D, affecting adults and the elderly, now impose a significant burden on global health and the economy.



The association between poor psychosocial health and the risk of obesity and T2D is well established. Shift work, night work, working overtime and a lack of coherence during working life are well-known risk factors for T2D, although we do not understand fully how these factors affect long-term health outcomes, and when in the life course their effects are most pronounced.

DynaHEALTH is interested in engaging individuals and organisations with an interest in the project to ensure the impact of the research is maximised. If you want to know more go to our website www.dynahealth.eu and subscribe to our newsletter or contact us directly.

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Understanding healthy and active ageing



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