FRESHER NEWSLETTER

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FRESHER

FORESIGHT AND MODELLING FOR EUROPEAN HEALTH POLICY AND REGULATION

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The final FRESHER project conference was held in Brussels on 7 December. It gave the opportunity for the members of the FRESHER consortium to discuss key findings of the project with about 50 participants from the EU policy making environment, NGOs and research groups. These discussions will be especially useful for the final exploitation of results both for the final report and future scientific publications. The following four key messages emerged from the project and the discussion:

- The FRESHER project has identified eight key societal trends that are especially likely to influence the health of people in Europe between today and 2050, and alternative policies to manage these trends. Four different future Scenarios were derived from alternative hypothesis about their impact on the main risk factors for NCDs and interfaced with a micro-simulation model.
- Micro-simulation results show that NCDs rates may increase by up to a third in 2050 relative to current levels, and health expenditures may increase by one fourth. Life expectancy as well as incidence and prevalence of NCDs are projected to grow to different degrees in the four FRESHER scenarios compared to current levels. However, demographic trends, i.e. population ageing, will remain the main driving force for increase in NCDs and their impact irrespective of the other structural trends affecting health.
- The FRESHER project has attempted to better take into account multimorbidity than in previous prospective exercises. Multimorbidity will have significant amplifying consequences on the impact of NCDs. Socioeconomic and behavioural factors appear to be more important than clinical parameters in progression from a single disease to multimorbidity or risk of mortality in those with multimorbidity. In addition, FRESHER economic analysis reveals a super-additive effect of comorbidity on costs.
- The FRESHER project has assessed the impact of a combination of the most efficient public health policies aimed at tackling NCDs risk factors (poor diets, sedentary behaviours, obesity, smoking and harmful use of alcohol). Results suggest that scaling up these policies across whole of Europe will have some, but limited effect for control of NCDs. Indeed, Scenarios such as "Healthy Together" which already include innovative policies promoting environmental, nutrition, social protection and lifestyle improvements would produce better results than just generalising conventional public health policies in all the other scenarios. Therefore, there is an urgent need for additional and innovative policies targeting the above factors.

A dedicated webtool www.fresher-explorer.eu allows for an in-depth comparison between the health scenarios, their impact on NCDs evolution and the effectiveness of standard public health policy interventions. The tool will be further refined and can be used by policy makers from all sectors, researchers and the public health community at large. Results that have emerged from the FRESHER project emphasise the need for the public health community to consider structural trends and their interactions in tackling the burden of NCDs, break away from silos thinking and put NCDs control at the core of synergistic interactions between the 17 Sustainable Development Goals (SDGs) adopted by the UN at Horizon 2030.

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FINAL CONFERENCE

FRESHER Final Conference • 7 December 2017 • Brussels, L24

FRESHER final conference & project results

The final conference of the FRESHER project took place on 7 December in Brussels – the culmination of three years' work by the project consortium to develop alternative scenarios for health, against which the effectiveness of future policies aiming to tackle the burden of non-communicable diseases (NCDs) could be tested.

Project coordinator Pr Jean-Paul Moatti opened the event, highlighting the unique nature of the FRESHER project which has combined qualitative foresight methods and quantitative forecast modelling thanks to the work of a highly multidisciplinary team, and developed microsimulation tools to quantify the health and socio-economic impact of four scenarios up to 2050 which might affect the development of NCDs and their effect on European populations.

The project was developed in the knowledge that whatever the future holds, the prevalence of NCDs is bound to increase by one-third by 2050, with an associated increase in health expenditure by 25%, against the background of an increasingly elderly population. The causes of NCDs are well known – it is now more important to consider the drivers behind this increasing prevalence – for example, environmental changes, new agricultural patterns, or the role of the media, particularly as the evolution of different structural trends may have very different impacts on the way that demography might affect health and NCDs, and might result in even worse outcomes than have already been predicted.

Different members of the project consortium then went onto present the key stages of the project, beginning with the Austrian Institute of Technology (AIT) and ISINNOVA who introduced the participants to the process of developing the four FRESHER scenarios. Involving more than 400 stakeholders, and the organisation of 6 regional workshops, 2 surveys and 2 high policy discussions, following a horizon scanning exercise to identify the relevant drivers, trends such as population ageing, urbanisation, innovation in medicine and agriculture were ranked and analysed by external experts according to their perceived importance and inevitability. Resulting from this ranking, four health scenarios were identified, imagining different trend evolutions. As such, the four scenarios contrasted alternative futures at 2050. Apart from a Business As Usual scenario, 'The rich get healthier', in which all trends follow the current path, with rising inequalities and slight environmental improvements, and a deeply negative scenario 'Desolation health', in which all trends worsen due to a severe deterioration of

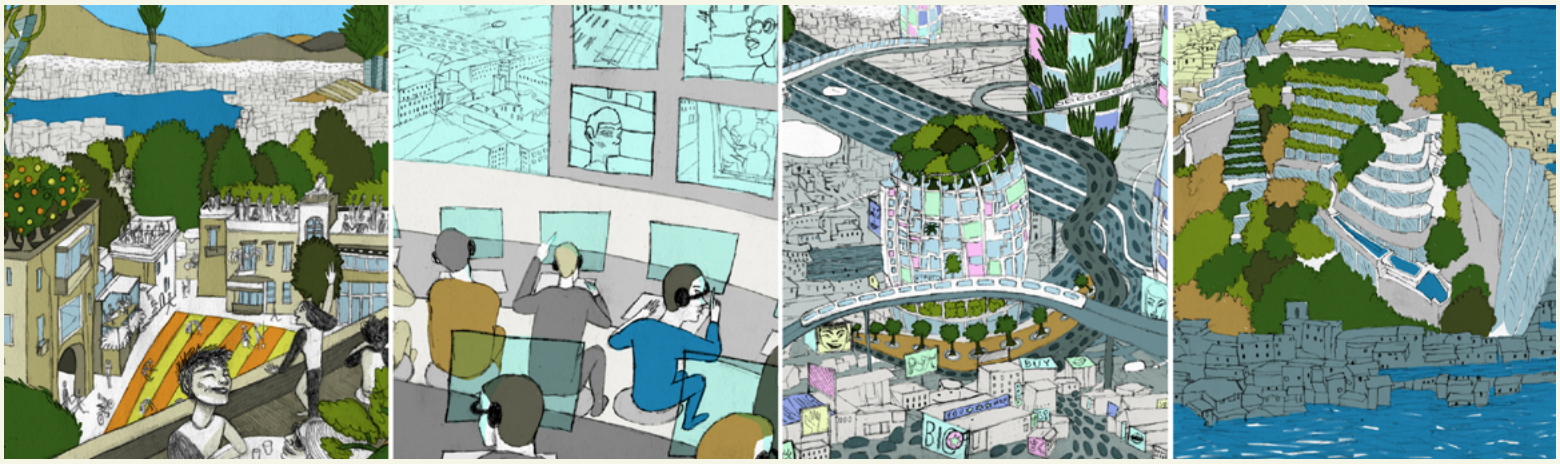

Image 1. The four FRESHER Scenarios

political and societal arrangements, two other scenarios were developed. 'We will health you' scenario describes a situation in which strong policy actions are put in place to build a more prosperous and egalitarian society, promoting health as a means for enhancing productivity and growth, but in the complete overlooking of environmental sustainability and planet limits. By contrast, 'Healthy together' scenario imagines a systemic change towards a highly sustainable, fair and healthy society which comes into place thanks to paradigmatic shift of people's attitudes and lifestyles, which is in turn triggered by a combination of disruptive policies and progressive change in people's mind-set. While the Scenarios were already presented at a dedicated FRESHER event in the framework of the EPHA Annual Conference in September, the consortium presented a refined and final version at the Final Conference in conjunction with the microsimulation results.

The qualitative foresight part was followed by a presentation by the Organisation for Economic Cooperation and Development (OECD) to explain the development of the microsimulation model, which takes account of factors such as demography, epidemiology, risk factors, relative risks and the costs of different chronic diseases to model outcomes such as the effects on population, prevalence, morbidity and healthcare expenditure. After modelling the 8 major non-communicable diseases and the 6 behavioural risk factors (e.g. BMI, smoking, alcohol), and validating the assumptions by looking at historical trends, external experts were again asked to predict the likely level of these risk factors by 2050, estimating, for example, the rates of smoking or obesity in each of the FRESHER scenarios.

Another key finding has been the impact of social and behavioural factors on the evolution of multi-morbidity where an individual has more than one chronic disease and the effect of this on

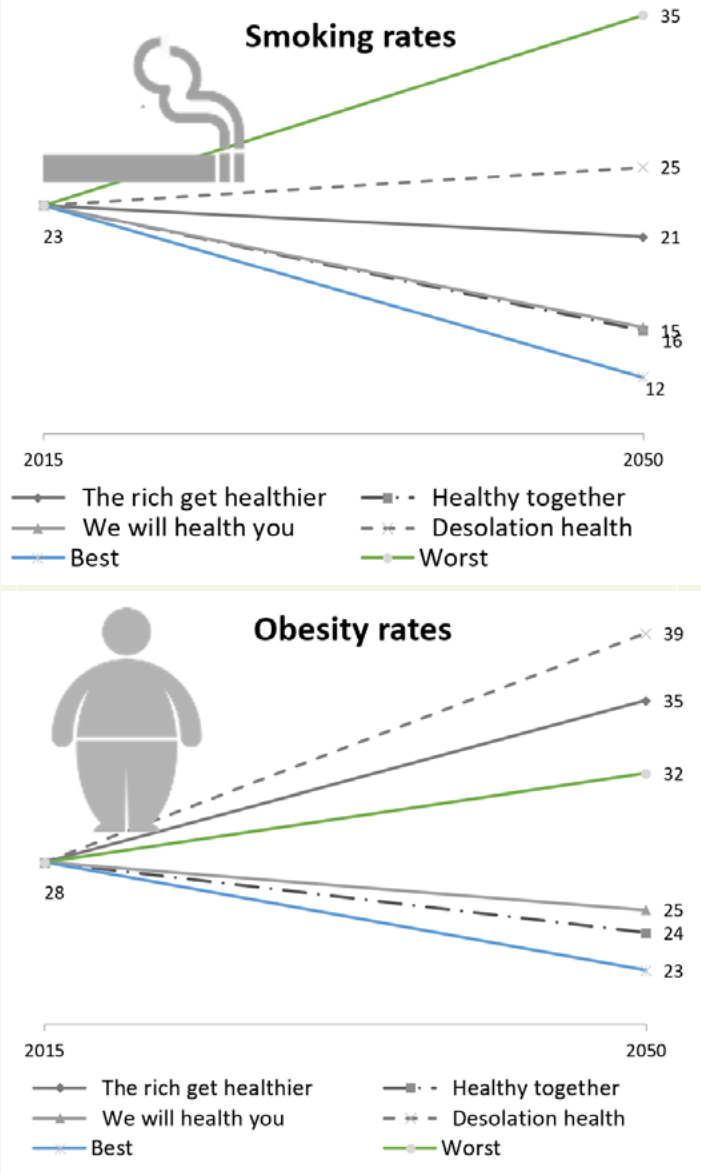

Image 2. Risk factors evolution under different scenarios – smoking and obesity rates

health expenditures. FRESHER partner Aix-Marseille University (AMU) with support by the OECD have demonstrated the super-additive effect on costs, whereby expenditure for treating the primary disease spikes significantly if it occurs in interaction with another condition (e.g. treating diabetes with heart disease as comorbidity increases the cost of treating diabetes). Finally, the FRESHER modelling reveals that even in the most optimistic scenario, with all governments

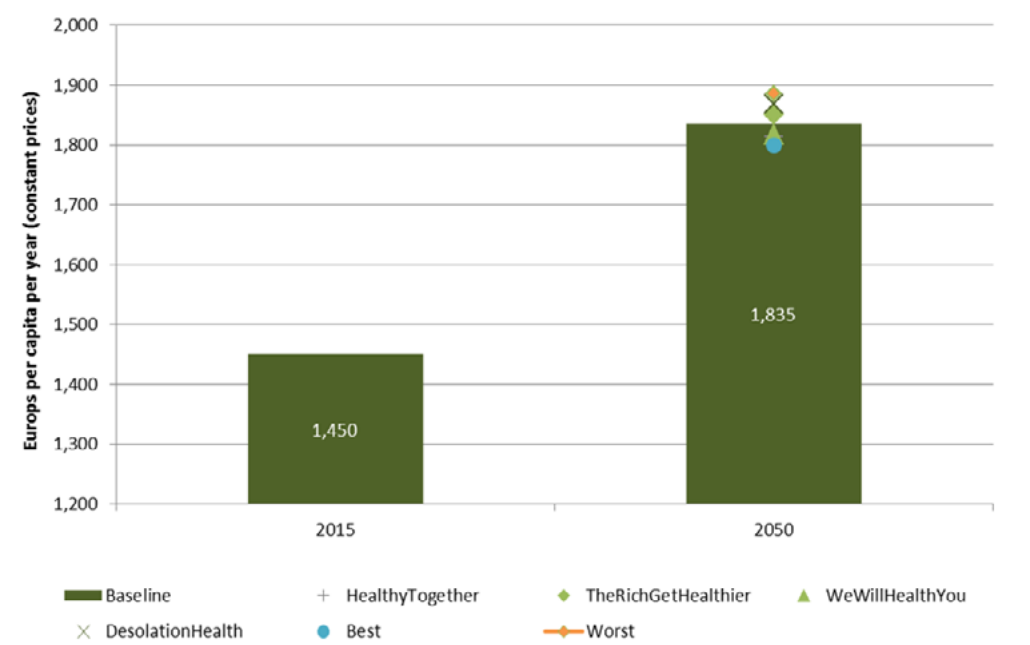

Image 3. Impact of scenarios on healthcare expenditures, (Southern Europe)

implementing the public health policies judged to be the best to tackle NCDs, this may not be enough to contain their detrimental impact on European populations and a striking increase of health expenditures.

Franco Sassi of Imperial College, London and the OECD, then opened the next session by highlighting some of the key results. Against the expected increase in life expectancy, the FRESHER model shows the impact of the different key trends behind the FRESHER scenarios with increases in life years for men and women varying up to one year for women and two years for men, according to which of the scenarios is being considered, with regional variations between Northern, Eastern/Central and Southern Europe. Increases in life expectancy, however, will also lead to increases in the prevalence of NCDs in Europe, with for example more cases of cancer and diabetes, resulting in turn in the need to increase average health expenditure. With public health often "the cinderella of health systems" suffering from underinvestment and a reluctance in taking radical approaches, the findings question what steps governments should take to generate meaningful change.

The first part of the conference ended with the launch of the FRESHER microsimulation model, which interested individuals and decision-makers can examine at www.fresher-explorer.eu, allowing interrogation of the results, comparison between the different health scenarios and risk factor evolution up to Horizon 2050, as well as the assessment of the effectiveness of standard public health policy interventions. Questions ranged from technical aspects concerning assumptions, data and relative risks on which the model is based, to what kind of policies could be tested by the model and what policies beyond the health sector can be identified and implemented to provoke a paradigm change to address NCDs. The experts from the OECD have remarked that the model is highly flexible and can be tailored to test for additional policies – even beyond the health sector, for which, however, for the time being, evidence on their health effects is rather limited. Therefore, the discussion has revealed the need for future areas of research, both for identifying new disruptive policies and for developing of an evaluation framework of implemented policies to

collect evidence on their effectiveness, which will be included in the final project recommendations. The second part of the conference was an opportunity for participants to discuss what the results might mean for policy-makers and public health advocates, trying to answer the question if the right policies are already in place to address these trends, or if a more radical approach is now required to address this public health crisis and raising the question - What is preventing governments from applying public health policies on a larger scale?

Several propositions, such as lack of political will to take action to introduce tax policies to reduce consumption of alcohol, tobacco, foods high in fat, salt and sugar, lack of meaningful policies on food labelling or to curb marketing of unhealthy food, or fear of adverse effects of such measures on the economic growth and employment or on particular population groups, were put forward. From the following discussion, participants and speakers alike highlighted the need to move beyond the public health community when discussing these issues, stressing the importance of engaging with other sectors so that a wider audience becomes more aware of the importance of taking action now against these health threats, and their potential future impact on society; and ensuring they are highlighted in the context of larger discussions about the future of Europe and the achievement of the UN Sustainable Development Goals (SDGs), where attainment of the health-related goals plays a crucial role. A key issue that emerged is to enhance research efforts with the final aim of collecting evidence to assess policy effects, ultimately to build consensus around the implementation of health policies on a larger scale and for enriching them with bold policies beyond the health sector that can nonetheless positively affect our future health conditions.

The conference presentations, and the briefing outlining the results in more detail are available on the FRESHER website.

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LEFT: Susanne Giesecke (AIT) • Marion Devaux (OECD) • Rafal Halik (SCCS)
RIGHT: Franco Sassi (OECD) • Aliénor Lerouge (OECD) • Giovanna Giuffrè (ISINNOVA)

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