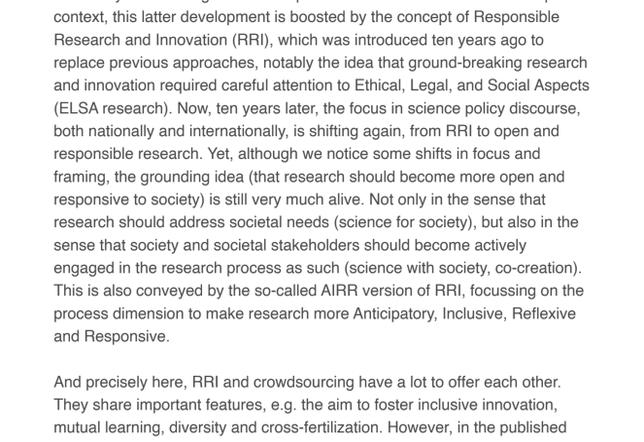


Dear reader,

We are happy to share with you this third issue of our newsletter. First, we introduce our crowdsourcing approach to build a shared engagement between scientists and communities. Furthermore, we present an article from our team in Białystok on sitting behaviour and how it can affect our health. You'll find out how to overcome unfavourable habits. Is there any better time to increase physical activity than during the summer?

Enjoy your reading!



Crowdsourcing as a method to foster inclusive research.

Triggered by the pressing societal challenges we are facing, drastic changes are taking place in the way in which scientific research is designed and conducted. Research methodologies are rapidly evolving, as research aspires to become more collaborative, inclusive, and interactive, more sensitive to societal expectations and concerns, and better equipped to effectively address urgent and complex societal needs. Within the European context, this latter development is boosted by the concept of Responsible Research and Innovation (RRI), which was introduced ten years ago to replace previous approaches, notably the idea that ground-breaking research and innovation required careful attention to Ethical, Legal, and Social Aspects (ELSA nationally). Now, ten years later, the focus in science policy discourse, both nationally and internationally, is shifting again, from RRI to open and responsible research. Yet, although we notice some shifts in focus and framing, the grounding idea (that research should become more open and responsive to society) is still very much alive. Not only in the sense that research should address societal needs (science for society), but also in the sense that society and societal stakeholders should become actively engaged in the research process as such (science with society, co-creation). This is also conveyed by the so-called AIRR version of RRI, focussing on the process dimension to make research more Anticipatory, Inclusive, Reflexive and Responsive.

And precisely here, RRI and crowdsourcing have a lot to offer each other. They share important features, e.g. the aim to foster inclusive innovation, mutual learning, diversity and cross-fertilization. However, in the published literature the link between these two concepts has rarely been drawn so far. One of the aims of the JoinUs4Health project is to develop crowdsourcing as a concrete tool for participatory and responsible research implementing and practising inclusive innovation. By making use of the wisdom of the crowd in a structured and open manner, trust in science can be strengthened and current trends such as polarisation can be counteracted by allowing citizens to actively contribute to the development of research. In cohort research, this means that participants are not merely seen as providers of data but are invited to co-design the objectives of the research, by voicing their most urgent questions and concerns, which can be shared with others. All participants are seen as experts and participating citizens are invited to assess how cohort research can be designed, conducted, analysed, interpreted and communicated in such a way that the results can optimally contribute to well-being and empowerment.

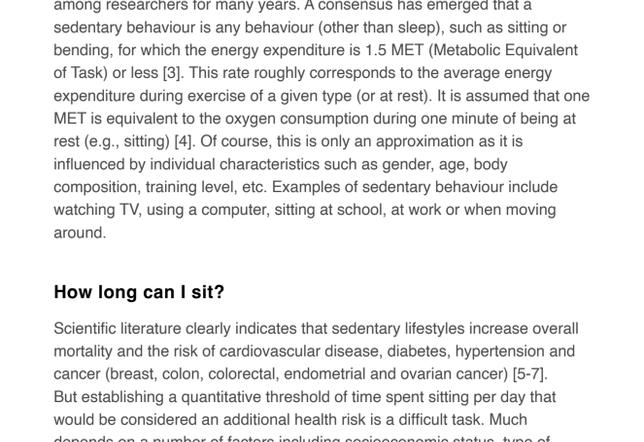
Rather than seeing crowdsourcing as a ready-made tool, we see the JoinUs4Health project as a laboratory for the further development of this method. We are interested in whether this allows research to become truly participatory and how we can address challenges of inclusive research such as differences in power and language. Epistemic inclusion is also a challenge: how to incorporate various forms of knowledge? Although research produces a wealth of insights and knowledge, there are many knowledge deficits as well, notably in the sense that it is difficult to anticipate how research results will affect the needs and values of citizens. This requires active involvement and participatory research.

Welcome to our JoinUs4Health laboratory! Join Us by contributing questions and suggestions, contributing to tasks and teams or voting on contributions of others: Go to the [platform](#)

Prof. Dr. Hub Zwart, Erasmus School of Philosophy, Erasmus University Rotterdam

Further reading:

- Deliverable 2.1 [Methodological guidelines on implementing RRI and crowdsourcing in cohort research for partners](#)
- Deliverable 5.2 [Recommendations for policy makers to integrate RRI in educational programs](#)



Sedentary lifestyles – the invisible pandemic of the 21st century

What does it mean to sit?

Sedentary lifestyles have become one of the independent factors affecting overall mortality in European countries in the 21st century [1]. The World Health Organization estimates that nearly one in three people over the age of 15 have insufficient levels of daily physical activity, contributing to approximately 3.2 million deaths each year [2]. For European countries, these estimates are even less optimistic, stating that almost one in two people has a sedentary lifestyle.

The definition of a sedentary behaviour has been the subject of lively debate among researchers for many years. A consensus has emerged that a sedentary researcher is any behaviour (other than sleep), such as sitting or bending, for which the energy expenditure is 1.5 MET (Metabolic Equivalent of Task) or less [3]. This rate roughly corresponds to the average energy expenditure during exercise of a given type (or at rest). It is assumed that one MET is equivalent to the oxygen consumption during one minute of being at rest (e.g., sitting) [4]. Of course, this is only an approximation as it is influenced by individual characteristics such as gender, age, body composition, training level, etc. Examples of sedentary behaviour include watching TV, using a computer, sitting at school, at work or when moving around.

How long can I sit?

Scientific literature clearly indicates that sedentary lifestyles increase overall mortality and the risk of cardiovascular disease, diabetes, hypertension and cancer (breast, colon, colorectal, endometrial and ovarian cancer) [5-7]. But establishing a quantitative threshold of time spent sitting per day that would be considered an additional health risk is a difficult task. Much depends on a number of factors including socioeconomic status, type of occupation, age, gender, frequency and type of physical activity undertaken. Thus, in some studies we observe distant population averages ranging from 2.5-3 hours per day in Portugal, Brazil or Colombia, to 7-8 hours in Saudi Arabia, Japan or the UK [8-10]. One study summarising numerous research findings concluded that the risk of overall mortality increases significantly above 7 hours spent sitting per day [11].

Is this really our problem?

Not very optimistic observations come from the Polish study Białystok PLUS, according to which, regardless of age and gender, every fourth Białystok resident spends from 8 to 10 hours every day in a sitting position. People aged 70-80 understandably spend the most time sitting, while women aged 20-39 and men aged 30-39 (in almost the same proportion as seniors) and 40-49 sit for only a few minutes less per day. When men and women are compared, there are no differences among the youngest Białystok residents during the working week (Monday-Friday). It is only in the age group of 30-39 that a trend becomes noticeable where men spend more time sitting, reaching a maximum difference (52 minutes on average) in the age group 40-49. The greater tendency for men (compared to women) to spend time sitting becomes even more apparent at the weekend - on their days off: women try to sit less (a few tens of minutes less compared to the working week), while most men treat sitting as a form of relaxation, reaching higher values on average than between Monday and Friday.

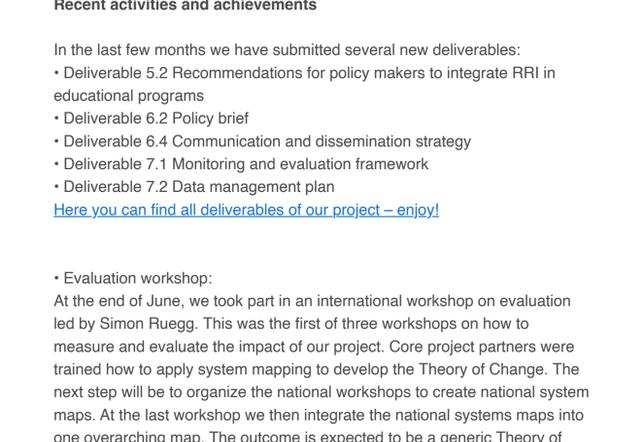
Why is this important and what can we do?

A sedentary lifestyle becomes part of our behaviour quite quickly and easily. It is a habit that is difficult to overcome due to the need to take action with completely different characteristics - movement and physical activity. Spending time sitting gives an apparent feeling of relaxation, while in the broad perspective of our health, it can have devastating effects. What should we do? The right answer is physical activity, selected in an appropriate manner to suit individual preferences and abilities of a given person. The most recommended type of physical activity is Moderate to Vigorous Physical Activity (MVPA), which, if performed for more than 10 minutes, allows us to achieve health -promoting values of energy expenditure. This type of physical activity can be recognised by observing yourself while performing it - it should be accompanied by an accelerated heart rate, increased body temperature, increased sweating, and accelerated and deepened breathing. It is worth remembering that in such an effort we should not reach our maximum capacity, and its performance should be preceded by a warm-up and a phase of rest afterwards. Examples include walking with variable dynamics, cycling at a medium pace, swimming at a slow pace, doing breathing exercises and exercises to increase muscle flexibility, or dancing. We should also not forget to take regular breaks while sitting, during which it is advisable to do stretching exercises or exercises to improve our posture. It turns out that taking regular breaks while sitting for physical activity (of different intensity) can effectively lower blood pressure, triglyceride levels or blood glucose levels [12].

Our aim is to raise awareness about the issues of sedentary lifestyles. We want to encourage you to ask questions and discuss the issue of physical activity in our regions. What can we do to prevent the invisible pandemic of sedentary lifestyles? Are the places we live in conducive to physical activity? Can physical activity enthusiasts together with researchers generate added benefit for the local community?

Join Us: Submit suggestions, vote or contribute to this topic
Dr. Paweł Sowa, Medical University of Białystok, Poland

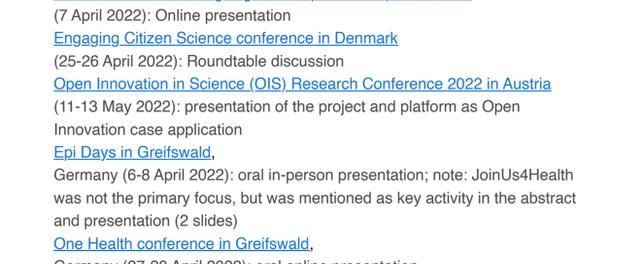
[For a reference list, please go to the topic on the JoinUs4Health Platform](#)



JoinUs4Health news

Recent activities and achievements:

- **First Research Cafe in Białystok**



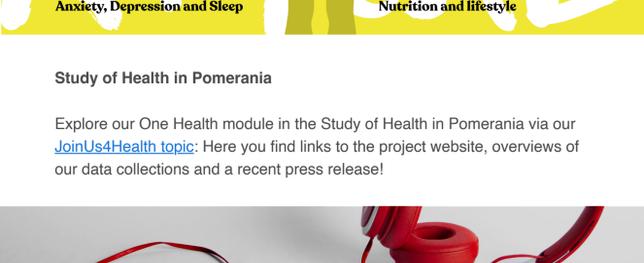
On 20 April, the first edition of the Research Cafe took place in Białystok, Poland. Its title was „The forest within us. How close our relationship with nature affect our health?”. We've discussed forest us, our relationship with nature in the context of our health and Nature Deficit Disorder.

Invited guests:

- Dr Katarzyna Simonienko - psychiatrist, ecotherapist, member of the Polish Psychiatric Association. Her main scientific interests include treatment of anxiety and depression disorders, ecopsychiatry and influence of the natural environment on health in the psych and somatic aspect.
- Agata Preuss - pedagogue, outdoor education trainer, nature and forest educator, author of educational programs and articles popularizing the idea of forest kindergartens. She co-founded the Polish Forest Kindergarten Institute. Director of the Forest Kindergarten „Puszczyk”. Co-author of the book „Forest therapy with children”.
- Dorota Zaniewska - cultural anthropologist, educator, social activist, populariser of the idea of forest kindergartens, author of articles and training programs. Co-founder of the Polish Forest Kindergarten Institute and co-author of the book „Forest therapy with children”.

We've also presented the JoinUs4Health Platform and initiated several topics related to the impact of nature on the health of children and adults. Topics are currently being discussed on the platform and everyone is welcome to join in the ongoing discussions.

- **Trending topic on platform: Community Gardens**



One of the first topics being prepared on the platform concerns community gardens. As part of the activity, the participants are invited to plan and establish an ornamental and utilitarian community garden, which will be a place for meetings, conversations and various activities. Participants can grow and care for vegetables, flowers and herbs and respond to the current needs of these plants, as well as successively harvest and use the crops. Research activities are also encouraged around practical activities. One of the initial aims of this topic is to develop a summary of scientific reports on the positive impact of community gardens. We also encourage people from various background to share ideas and plan first practical steps. Join the discussion: [Gardening for Health](#)

Recent activities and achievements

In the last few months we have submitted several new deliverables:

- Deliverable 5.2 Recommendations for policy makers to integrate RRI in educational programs
 - Deliverable 6.4 Policy brief
 - Deliverable 6.4 Communication and dissemination strategy
 - Deliverable 7.1 Monitoring and evaluation framework
 - Deliverable 7.2 Data management plan
- [Here you can find all deliverables of our project – enjoy!](#)

- Evaluation workshop:

At the end of June, we took part in an international workshop on evaluation led by Simon Ruegg. This was the first of three workshops on how to measure and evaluate the impact of our project. Core project partners were trained how to apply system mapping to develop the Theory of Change. The next step will be to organize the national workshops to create national system maps. At the last workshop we then integrate the national systems maps into one overarching map. The outcome is expected to be a generic Theory of Change with indicators for evaluation as well as locally specific objectives. We'd love to have you involved in this and will keep you updated!

Further reading:

RUEGG, S. R., NIELSEN, L. R., BUTTIGIEG, S. C., SANTA, M., ARAGRANDE, M., CANALI, M., EHLINGER, T., CHANTZIARAS, I., BORIANI, E., RADESKI, M., BRUCE, M., QUEENAN, K. & HASLER, B. 2018. A systems Approach to evaluate one health Initiatives. *Frontiers in Veterinary Science*, 5.

- The project was presented at the following conferences / meetings:

[Fehler! Linkreferenz ungültig. for Responsible Open Science](#)

(7 April 2022): Online presentation

[Engaging Citizen Science conference in Denmark](#)

(25-26 April 2022): Roundtable discussion

[Open Innovation in Science \(OIS\) Research Conference 2022 in Austria](#)

(11-13 May 2022): presentation of the project and platform as Open Innovation case application

[Epi Days in Greifswald](#),

Germany (6-8 April 2022): oral in-person presentation; note: JoinUs4Health was not the primary focus, but was mentioned as key activity in the abstract and presentation (2 slides)

[One Health conference in Greifswald](#),

Germany (27-28 April 2022): oral online presentation

Cohort news

Rotterdam Study

Did you know that:

The Rotterdam Study (ERGO in Dutch) is a population-based study consisting of 14 research lines. Each line of research focuses on a different body function and investigates the role of that function in relation to the ageing of the body.

Minor

Dutch collaborators of the JoinUs4Health consortium organize a 10-week educational period for bachelor students in August-September 2022. Leveraging the interactive potential of the JoinUs4Health userplatform, this 'minor' covers the changing aspects of contemporary science, because views on what should be considered a 'successful' scientist are changing. Scientists are expected to publish in top-journals and educate peers, and are increasingly praised if they have 'societal impact'. These criteria apply to all disciplines, but what does societal impact exactly mean? And why is it important for a career in contemporary science? This minor will guide students through the jungle to help align their scientific ambitions with contemporary expectations. For more information, go to: [Minor From Science to Society | Erasmus University Rotterdam \(eur.nl\)](#) or email one of the minor coordinators: s.licher@erasmusmc.nl or n.terzikh@erasmusmc.nl.

Study of Health in Pomerania

Explore our One Health module in the Study of Health in Pomerania via our [JoinUs4Health topic](#): Here you find links to the project website, overviews of our data collections and a recent press release!

Podcast: interview with Dr Birgit Schauer

„With the Join Us 4 Health project, we are trying to combine the concepts of crowdsourcing with responsible research and innovation” - says Dr Birgit Schauer, University Medicine Greifswald, JU4H Project Leader.

[Listen to the podcast \[eng\]](#)

Stay up to date with our upcoming news.

The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 1011006518.

Legal notice

Universitätsmedizin Greifswald
Körperschaft des öffentlichen Rechts
Fleischmannstraße 8
17475 Greifswald

Telefon: +49 (0)3834 86-0
E-Mail: info-unimedizin@med.uni-greifswald.de
Website: <https://www.medizin.uni-greifswald.de>

© join us for health 🍀