

Participant no.	Name	Country
x	Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek (TNO)	The Netherlands

Description of the Organization

TNO is one of the major contract research organisations in Europe. With a staff of approximately 3500 and an annual turnover of 580 million Euros, TNO is carrying out research in order to achieve impact on the following seven themes: Healthy Living, Industrial Innovation, Transport and Mobility, Energy, Built Environment, Information Society, and Defence, Safety and Security. TNO functions as an intermediary between basic research organisations and industry. By translating scientific knowledge into practical applications, it contributes to the innovation capacity of businesses and government. TNO is involved in many international projects (about 30% of the market turnover), including EU-funded collaborations.

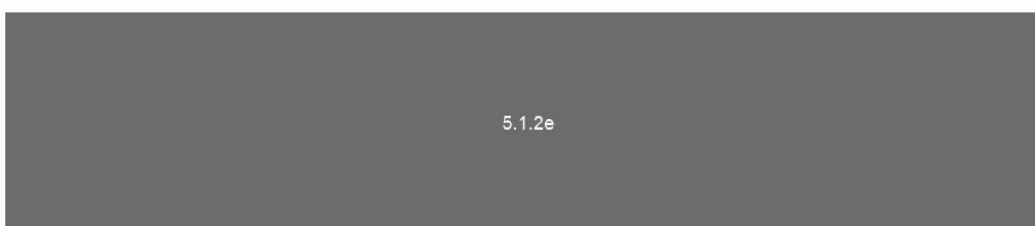
In TNO Healthy Living applied research is carried out in the areas of prevention and care. The expertise covers relevant technological aspects as well as the influence of human behaviour. The focus is on innovation in the areas of (1) how people with a chronic illnesses can be computer-based stimulated and supported to maintain a healthy lifestyle, and (b) how advances in knowledge-based, mobile and (embodied) agent, technologies can make it work.

TNO Healthy Living has a profound expertise in the field of behavioural science, eHealth, Intervention Mapping (systematic intervention design), and the design of evidence-based decision aids and shared decision making tools and other health promotion programs, including evidence-based intervention programs targeting vaccination decision making and uptake (e.g., HPV, MPV)

Main tasks in the project

TNO will contribute to identification of relevant psychosocial and behavioural determinants of Maternal Vaccination and HPV uptake, as well as in the prioritization of existing intervention programs, and in the development of evaluation criteria to assess evidence-basis of intervention (WP2, 3 and 4); the adaptation and re-engineering of prioritized interventions to ensure a fit with local/regional differences (WP3), and the planning of the systematic implementation and evaluation of interventions, in order to achieve improved vaccination uptake (WP3).

Profile of the staff members



Key publications

- Bults, M., Beaujean, D., De Zwart, O., Kok, G., **van Empelen, P.**, van Steenbergen, J., Richardus, J.H. & Voeten, H. (2010). Mexican flu: Risk perception among the population, personal actions and trust in public information. *Nederlands Tijdschrift voor Geneeskunde*, 154(19), 897-901.
- Hofman, R., **van Empelen, P.**, Richardus, J. H., de Kok, I. M., De Koning, H. J., van Ballegooijen, M., & Korfage, I. J. (2013). Predictors of HPV vaccination uptake: a longitudinal study among parents. *Health Education Research*, 29(1), 83-96.
- Pot M, Paulussen TG, Ruiter RA, Eekhout I, de Melker HE, Spoelstra ME, **van Keulen HM** (2017). Effectiveness of a Web-Based Tailored Intervention With Virtual Assistants Promoting the Acceptability of HPV Vaccination Among Mothers of Invited Girls: Randomized Controlled Trial. *J Med Internet Res*;19(9):e312
- Pot M, **Van Keulen HM**, Ruiter RAC, Eekhout I et al. (2017). Motivational and contextual determinants of HPV-vaccination uptake: A longitudinal study among mothers of girls invited for the HPV-vaccination. *Prev Med*, 100:41–49.
- Van Der Veen, Y. J., **Van Empelen, P.**, & Richardus, J. H. (2011). Development of a culturally tailored Internet intervention promoting hepatitis B screening in the Turkish community in the Netherlands. *Health Promotion International*, 27(3), 342-355.

Relevant previous projects or activities

- **Examining determinants of HPV uptake among parents of girls invited for HPV** Grant from the Netherlands Organisation for Health research and Development (ZonMw). This project was dedicated to understanding psychosocial determinants of HPV acceptance and uptake; included qualitative and quantitative research.
- **HPV Tailored Decision Aid.** Development of an tailored intervention to improve informed HPV decision making and HPV uptake. (ZonMw). In this project a online, tailored decision was developed and evaluated. This tool proved to be effective in increasing HPV informed decision making and HPV uptake.
- **Effects, use and acceptability of an online tailored and centering pregnancy intervention to promote pertussis vaccination of pregnant women** (ZonMw). As part of the project determinants of MPV acceptance were examined. Two different interventions (online tailored intervention and a group care-based intervention) have been developed.
- 2012-2015 The Safety Check: The development and pilot implementation of mobile phone based application to promote STI testing among young people (ZonMw). This project tested a chatbot-based STI risk assessment and online referral tool to increase reach of vulnerable population and to ease access of care to STI risk centers.