

STREAM newsletter  
11  
June 2017

# NEWS STREAM

*Introducing CODI:  
A new cohort study*





## STREAM spring/summer 2017

### STUDY on TRANSITIONS in EMPLOYMENT, ABILITY and MOTIVATION

The months before summer recess tend to be filled with a buzz of plans and activity. This is also the case for STREAM and the reason for this 11<sup>th</sup> edition of our newsletter!

In this newsletter we will get you acquainted with a new cohort study on sustainable employability: Cohort Onderzoek Duurzame Inzetbaarheid (CODI). Although in terms of content this study is similar to STREAM, a main difference is the study population. As work on STREAM was progressing, we could not disregard the fact that sustainable employability is not only relevant for *older employees*, but for *all employees*. Therefore, CODI was set up to include all age groups of the working population (15 – 75 years). On the next pages you can read more about the survey and data collection. We will make sure to keep you posted on further news about CODI in future editions of this newsletter!

In the current edition of the newsletter we will also highlight three studies recently published (or accepted for publication) that were (partly) based on STREAM data.

First, Jodi Oakman and colleagues published a study on the relation between work characteristics and the development of multi-site musculoskeletal pain. Second, Stef Bouwhuis and his team conducted a study on predictors of multiple job holding, which was recently accepted for publication. Third, a study by Micky Scharn et al. on predictors of working beyond the retirement age was also recently accepted for publication.

We wish you an interesting read and not to mention a very nice summer!

The STREAM/CODI-team

#### STREAM TNO STAFF

DR. SWENNEKE VAN DEN HEUVEL

DR. GOEDELE GEUSKENS

DR. KAREN OUDE HENGEL

DR. LINDA KOOPMANS

DR. IRENE NIKS

DR. ERNEST DE VROOME

LENNART VAN DER ZWAAN

STEF BOUWHUIS

PROF. DR. PAULIEN BONGERS

#### IN COLLABORATION WITH

PROF. DR. ALLARD VAN DER BEEK, VUMC

PROF. DR. KÈNE HENKENS, NIDI

PROF. DR. ALEX BURDORF, ERASMUS MC





## CODI: A new cohort study on sustainable employability

### Sustainable employability at all ages

Improving sustainable employability is important among workers of all ages. Therefore, TNO has started a new longitudinal study, called CODI (Cohort Onderzoek Duurzame Inzetbaarheid, or cohort study sustainable employability). The figure below represents the theoretical framework of CODI.

According to the framework sustainable employability is influenced by human capital, while human capital will be influenced by work and personal factors.

### Study population and response

The study population of CODI consists of (self-) employed and unemployed persons between the ages of 15 and 75.

In 2016, approximately 34.000 persons were asked to participate in CODI. They had previously (2015) participated in either the Netherlands Work Conditions Survey<sup>1</sup> or the Netherlands Employer Work Survey<sup>2</sup>.

Of the contacted persons, about 18.000 participated (53%): 15.000 employed persons, 1.500 self-employed persons, and 1.500 unemployed persons.

### Human capital

To capture human capital the questionnaire contains the individuals health, knowledge, skills, motivation and resilience.

### Work characteristics

Work characteristics included in the questionnaire refer to mental and physical load, job characteristics, and company characteristics.

### Personal factors

Personal factors refer to education, lifestyle, social and financial factors and societal participation.

### Sustainable employability

Sustainable employability refers to work status, work ability, mobility, self assessed employability and capability.

### Results

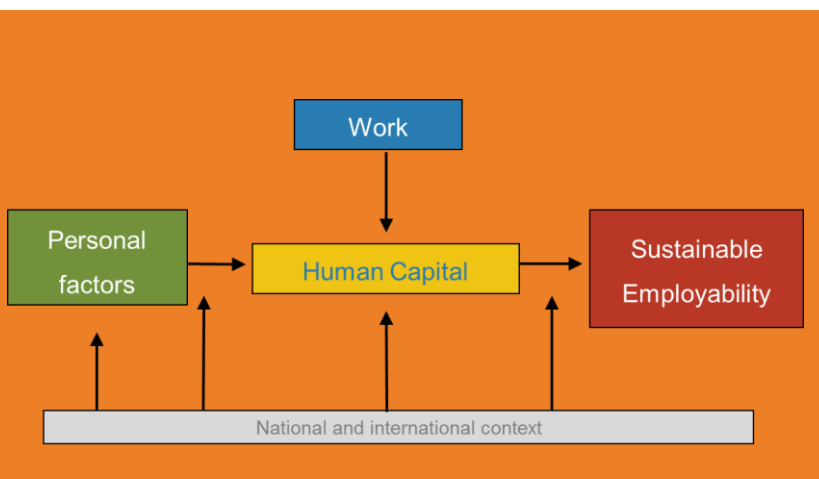
The first results of CODI are expected in autumn of 2017. We will keep you updated on any new information and results from CODI!

### Questionnaire

Like STREAM, the CODI questionnaire contains questions about work and health. However, differences between the questionnaires do exist. The following themes are included in the CODI questionnaire: sustainable employability, human capital, work characteristics and personal factors.

<sup>1</sup> In Dutch: nationale enquête arbeidsomstandigheden (NEA)

<sup>2</sup> In Dutch: zelfstandigen enquête arbeid (ZEA)





## Papers using STREAM data recently accepted for publication

### Work characteristics predict the development of multi-site musculoskeletal pain

Authors: J Oakman<sup>1</sup>, A de Wind<sup>23</sup>, SG van den Heuvel<sup>4</sup>, AJ van der Beek<sup>23</sup>

*International Archives of Occupational and Environmental Health* ([full-text now online available](#))

Musculoskeletal pain in more than one body region is common and a barrier to sustaining employment. We aimed to examine whether work characteristics predict the development of multi-site pain (MSP), and to determine if work-related predictors varied between age groups. Measures included physical, emotional, mental, and psychological job demands, social support and autonomy. The results showed that all work characteristics with the exception of autonomy were predictive of the development of MSP. No clear pattern of age-related differences were found.

### Predictors of transitions from single to multiple job holding: results of a longitudinal study among employees aged 45-64 in the Netherlands

Authors: S Bouwhuis<sup>123</sup>, GA Geuskens<sup>23</sup>, CRL Boot<sup>12</sup>, PM Bongers<sup>123</sup>, AJ van der Beek<sup>12</sup>

*American Journal of Industrial Medicine* (accepted)

In many industrialized countries a substantial proportion of workers holds multiple paid jobs. We aimed to identify predictors from one job as an employee to multiple jobs as an employee (combination MJH) or one or more jobs as an employee and being self-employed (hybrid MJH). We found that a great variation of predictors predicted combination MJH and hybrid MJH. Not having a permanent contract and a poor financial situation of the household predicted both transitions. Some factors only predicted combination MJH, such as working part-time. Other factors only predicted hybrid MJH such as higher mastery, and work-home interference.

### Predicting working beyond retirement in the Netherlands: an interdisciplinary approach involving occupational epidemiology and economics

Authors: M Scharn<sup>1</sup>, AJ van der Beek<sup>12</sup>, M Huisman<sup>34</sup>, A de Wind<sup>126</sup>, M Lindeboom<sup>5</sup>, CTM Elbers<sup>5</sup>, GA Geuskens<sup>26</sup>, CRL Boot<sup>12</sup>

*Scandinavian Journal of Work Environment and Health* ([full-text now online available](#))

Due to pressure on the social security systems, governments are seeking changes in legislation to encourage older workers to work longer. The aim of this study is to investigate whether socioeconomic, health, demographic, work characteristics and social environmental characteristics independently predict working beyond retirement.

Health, work characteristics and social environment predicted working beyond retirement, but register-based socioeconomic and demographic characteristics did not independently predict working beyond retirement. This study shows that working beyond retirement is multifactorial.

1.School of Psychology and Public Health, Centre for Ergonomics and Human Factors College of Science, Health and Engineering, La Trobe University, Bundoora, Australia

2.Department of Public and Occupational Health, Amsterdam Public Health research institute, VU University Medical Center Amsterdam The Netherlands

3.Body@Work, Research Center on Physical Activity, Work and Health, TNO-VUmc, Amsterdam, The Netherlands

4.Netherlands Organisation for Applied Scientific Research TNO, Leiden, The Netherlands

1.Department of Public and Occupational Health, Amsterdam Public Health research institute, VU University Medical Center Amsterdam The Netherlands

2.Body@Work, Research Center on Physical Activity, Work and Health, TNO-VUmc, Amsterdam, The Netherlands

3.Netherlands Organisation for Applied Scientific Research TNO, Leiden, The Netherlands

1. Department of Public and Occupational Health, Amsterdam Public Health, VU University Medical Center Amsterdam, The Netherlands

2. Body@Work, Research Center on Physical Activity, Work and Health, TNO-VUmc, Amsterdam, The Netherlands

3. Department of Epidemiology & Biostatistics, Amsterdam Public Health, VU University Medical Center Amsterdam, The Netherlands

4. Department of Sociology, VU University Amsterdam, The Netherlands

5. Department of Economics and Development Economics, VU University Amsterdam, The Netherlands

6. Netherlands Organisation for Applied Scientific Research TNO, Leiden, The Netherlands



## Other selected publications

de Wind A, Leijten FRM, Hoekstra T, Geuskens GA, Burdorf A, van der Beek AJ. “Mental retirement?” Trajectories of work engagement preceding retirement among older workers. *Scandinavian Journal of Work Environment & Health* 2017;43(1):34-41 [LINK](#)

de Wind A, van der Pas S, Blatter BM, van der Beek AJ. A life course perspective on working beyond retirement—results from a longitudinal study in the Netherlands. *BMC Public Health*. 2016; 16:499 [LINK](#)

Ybema JF, van der Meer L, Leijten FRM. Longitudinal Relationships Between Organizational Justice, Productivity Loss, and Sickness Absence Among Older Employees. *International Journal of Behavioral Medicine* . 2016; 23(5): 645–654 [LINK](#)

Dorenbosch L, Boneschansker O, Fermin B, Andriessen S, Sanders J, Geuskens G. Multi-jobbing as an employability strategy [Multi-jobbing als employability-strategie]. *Tijdschrift voor Arbeidsvraagstukken* 2015;31:165-185. [Dutch] [LINK](#)

Leijten FRM, van den Heuvel SG, van der Beek AJ, Ybema JF, Robroek SJW, Burdorf A. “Associations of work-related factors and work engagement with mental and physical health: a 1-year follow-up study among older workers”. *Journal of Occupational Rehabilitation*. 2014;online first. [LINK](#)

Leijten FRM, van den Heuvel SG, Ybema JF, van der Beek AJ, Robroek SJ, Burdorf A. “The influence of chronic health problems on work ability and productivity at work: a longitudinal study among older employees”. *Scandinavian Journal of Work, Environment & Health*. 2014;40:473-82. [LINK](#)

Leijten FR, de Wind A, van den Heuvel SG, Ybema JF, van der Beek AJ, Robroek SJ, Burdorf A. The influence of chronic health problems and work-related factors on loss of paid employment among older workers. *J Epidemiol Community Health*. 2015 Nov;69(11):1058-65. Epub 2015 Jun 25. [LINK](#)

Ybema JF, Geuskens GA, van den Heuvel SG, de Wind A, Leijten FRM, Joling C, Blatter BM, Burdorf A, van der Beek AJ, Bongers PM. “Study on Transitions in Employment, Ability and Motivation (STREAM): The Design of a Four-year Longitudinal Cohort Study among 15,118 Persons Aged 45 to 64 Years”. *British Journal of Medicine & Medical Research*.2014;4:1383-99. [LINK](#)

Full list of publications: [LINK](#)

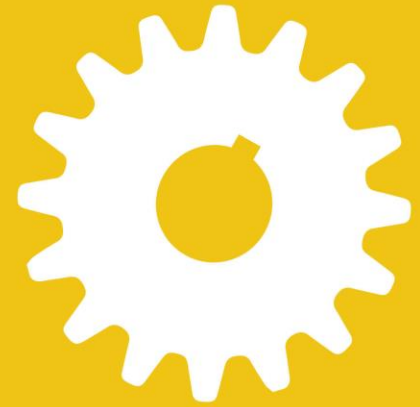


## What is STREAM?

STREAM is a **longitudinal study** among persons **aged 45-64** in the Netherlands. Participants fill in an online questionnaire on topics such as: health, work, knowledge and skills, social circumstances, and financial situation. More than **12,000 employees, 1,000 self-employed persons, and 2,000 non-employed** persons participated at baseline (2010). In 2016, **almost half** of them had **participated in each wave**. In 2015, a **new cohort** was invited to participate, to again include persons aged 45-49 and to include more working persons in the other age groups (N=6,738). For data collection an existing Intomart GfK internet panel is used. For 89% of baseline participants, **data linkage** with information from **Statistics Netherlands** is possible.

In addition to STREAM, TNO started a new cohort study in 2016: **CODI**. Participants had previously participated in either the Netherlands Working Conditions Survey or the Netherlands Employers Work Survey.

STREAM and CODI are conducted by **TNO**. Collaborating partners are VU University Medical Center, Erasmus Medical Center and the Netherlands Interdisciplinary Demographic Institute. STREAM and CODI are funded by the Dutch Ministry of Social Affairs and Employment.



**TNO** innovation  
for life

**STREAM** is interested in **(inter)national and multidisciplinary collaborations** to conduct **innovative research with practical implications**. Contact us for possible **partnerships!**

More information on STREAM is available at:  
**[www.monitorarbeid.nl/STREAM](http://www.monitorarbeid.nl/STREAM)**

Contact: **[infostream@tno.nl](mailto:infostream@tno.nl)**