

STREAM newsletter 14
September 2018

NEWS STREAM

Health and
working longer



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 2017, over 40% 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 GfK internet panel is used. For 89% of baseline participants, **data linkage** with information from **Statistics Netherlands** is possible.

STREAM is conducted by **TNO**. Collaborating partners are VU University Medical Center, Erasmus Medical Center and the Netherlands Interdisciplinary Demographic Institute. STREAM is 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

Contact: **infostream@tno.nl**



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STUDY on TRANSITIONS in EMPLOYMENT, ABILITY and MOTIVATION

In June 2018 the Health Council of the Netherlands published an advisory report titled 'Health and working longer'. At the request of the Minister of Social Affairs and Employment, the appointed committee gave advice on what is necessary, from a health perspective, to prolong working life. As yet, no research is available on actually working longer. Hence, findings were based on indicators of decreased employability.

The committee concluded that the likelihood of health problems increases with age, and that working longer may then be difficult. Low educated workers need special attention. Due to the large differences in health at higher ages, tailoring of interventions is needed. Furthermore, it was recommended to develop additional measures to support workers, and to explore whether flexible pensions are of interest.

Six studies based on STREAM data contributed to the evidence underlying the advisory report. In this newsletter, we will summarize these studies:

- Two studies by Leijten et al. found that health plays a role in early retirement and other exit routes from work ([link](#) and [link](#)).
- De Wind et al. added that other factors, such as financial and social factors, work factors, skills, and work engagement influence early retirement ([link](#) and [link](#)).
- Importantly, psychosocial work-related factors and individual factors may influence the relation between health and sustainable employability, as shown by Leijten et al. and Sewdas et al. ([link](#), [link](#) and [link](#)).

We hope you enjoy this newsletter!

The STREAM-team.

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The influence of health on work ability, productivity and exit out of the work force

The studies below investigated whether, among workers aged 45 years and older, chronic health problems influence sustainable employability, operationalized as loss of paid employment, work ability and productivity. The studies found that almost all chronic health problems predict decreased work ability, (to a lesser extent) lower productivity, and disability benefits. Some chronic health problems also predict an increased risk of unemployment and early retirement.

The influence of chronic health problems and work-related factors on loss of paid employment among older workers.

The aims of this study were to determine (1) whether different chronic health problems predict transitions from paid employment to disability benefits, unemployment and early retirement, and (2) how work-related factors modify these associations.

The results showed that all chronic health problems (severe headache, diabetes mellitus and musculoskeletal, respiratory, digestive and psychological health problems) predicted an increased risk of disability benefits. Circulatory and psychological health problems predicted unemployment, and musculoskeletal and

psychological health problems predicted early retirement. Psychosocial work-related factors, especially autonomy, modified the influence of health problems on disability benefits.

In conclusion, all health problems affected disability benefits to a similar extent, but psychological health problems especially predicted unemployment and early retirement. For older workers with health problems, promoting an optimal work environment has the potential to contribute to sustainable employment.

Leijten FRM, de Wind A, van den Heuvel SG, et al. The influence of chronic health problems and work-related factors on loss of paid employment among older workers. *J Epidemiol Community Health* 2015;69:1058-1065. For full-text article, click [here](#).

The influence of chronic health problems on work ability and productivity at work: a longitudinal study among older employees.

This study aimed to assess the influence of chronic health problems on work ability and productivity at work among older employees. Different methodological approaches were used to analyze the longitudinal data.

Workers with health problems had lower work ability at one-year follow-up than workers without these health problems. Additionally, work ability of persons with health problems decreased slightly more during one-year follow-up than that of persons without these health problems. Only workers with musculoskeletal and psychological health problems had lower productivity at work at one-year follow-up than workers without those health problems.

In conclusion, chronic health problems were associated with a decreased work ability and, to a much lesser extent, lower productivity at work. The choice for a particular methodological approach considerably influenced the strength of the associations.

Leijten FRM, Van den Heuvel SG, Ybema JF, Van der Beek AJ, Robroek SJW and Burdorf A. The influence of chronic health problems on work ability and productivity at work: a longitudinal study among older employees. *Scand J Work, Environ & Health* 2014; 40(5): 473-482. For full-text article, click [here](#).



Other factors that influence early retirement in addition to health

Health, job characteristics, skills, and social and financial factors in relation to early retirement - results from a longitudinal study in the Netherlands.

This study aimed to investigate the relative contribution of health, job characteristics, skills and knowledge, and social and financial factors to the transition from work to (non-disability) early retirement.

Older age, poor physical health, a positive attitude of the partner with respect to early retirement, and the financial possibility to stop working before the age of 65 predicted early retirement, whereas employees who reported high appreciation at work and higher focus on development of skills and knowledge were

“...prolongation of working life might be promoted by workplace health promotion and disability management, and work-related interventions focusing on appreciation and the learning environment.”

less likely to retire early. The financial opportunity to stop working before the age of 65 importantly contributed to early retirement.

In conclusion, in the context of rapidly diminishing financial opportunities to retire early in the Netherlands, the prolongation of working life might be promoted by workplace health promotion and disability management, and work-related interventions focusing on appreciation and the learning environment.

De Wind A, Geuskens GA, Ybema JF, Blatter BM, Burdorf A, Bongers PM and Van der Beek AJ. Health, job characteristics, skills, and social and financial factors in relation to early retirement - results from a longitudinal study in the Netherlands. *Scandinavian Journal of Work, Environment & Health* 2014; 40(2): 186-194. For full-text article, click [here](#).

“Mental retirement?” Trajectories of work engagement preceding retirement among older workers.

The aims of this study were to (i) identify different trajectories of work engagement among older workers approaching the retirement age, and (ii) examine their associations with actual retirement.

Of the 3171 employees, 16.2% made a transition from work to (early) retirement. Four trajectories of work engagement were identified: steady high (76.3%), steady low (12.7%), decreasing (6.2%), and increasing (4.8%). A steady low work engagement trajectory was associated with retirement, compared to a steady high work engagement trajectory. Although not statistically significant, an increasing work engagement trajectory seemed to be associated with retirement as well.

The results of this study did not support the concept of mental retirement before actual retirement, i.e., a decrease in work engagement among those facing retirement. However, as one in eight employees did experience steady low work engagement in the years before retirement, interventions promoting work motivation are recommended to support the employability of these employees.

De Wind A, Leijten FR, Hoekstra T, Geuskens GA, Burdorf A, and 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. For full-text article, click [here](#).

Thealth and sustainable employability



Two studies using STREAM data showed that work related factors influence the association between health problems and sustainable employability. Lower autonomy and higher job demands increased the association of an array of common chronic health problems with sickness absence, and adverse psychosocial factors (especially lower autonomy) increased the association of health problems with disability benefits. A third study showed that higher autonomy and higher mastery were associated with working until retirement among those with chronic diseases, but not among those without chronic diseases.

Do work factors modify the association between chronic health problems and sickness absence among older employees?

The aim of this study was to (i) assess how common chronic health problems and work-related factors predict sickness absence and (ii) explore whether work-related factors modify the effects of health problems on sickness absence.

Higher job demands at baseline increased the likelihood of high sickness absence at follow-up among workers with severe headaches and psychological health problems at baseline. Among workers with musculoskeletal, circulatory, and psychological health problems at baseline, those who had low autonomy at work experienced sickness absence more often than those with high autonomy at work. As previously described, Leijten et al. also demonstrated that psychosocial work-related factors, especially autonomy, modified the influence of health problems on disability benefits ([link](#)).

In conclusion, lower autonomy and higher job demands increased the association of an array of common chronic health problems with sickness absence and disability benefits. Hence, in order to promote sustainable employability, focus needs to be placed on these work factors.

Leijten FRM, Van den Heuvel SG, Ybema JF, Robroek SJW and Burdorf A. Do work factors modify the association between chronic health problems and sickness absence among older employees? *Scandinavian Journal of Work, Environment & Health* 2013; 39(5): 477-485. **For full-text article, click [here](#).**

Determinants of working until retirement compared to a transition to early retirement among older workers with and without chronic diseases: results from a Dutch prospective cohort study

The aim of this study is to explore the differences in determinants of working until retirement compared to a reference group who have transitioned to early retirement among workers with and without chronic diseases.

The majority of the determinants appeared to be similar for workers with or without a chronic disease; except for one individual factor (i.e. mastery) and one work-related factor (i.e. autonomy). Higher mastery and higher autonomy were statistically significantly associated with working until retirement for those with chronic diseases, whereas they were not for those without chronic diseases.

Differences between workers with and without chronic diseases may exist for working until a statutory retirement age. Interventions aimed at encouraging work participation of older workers should make a distinction between the two groups. Autonomy at work and mastery were found to be factors that may promote work participation until higher age, specifically for older workers with chronic diseases.

Sewdas R, Van der Beek AJ, De Wind A, Van der Zwaan LGL, Boot CRL. Determinants of working until retirement compared to a transition to early retirement among older workers with and without chronic diseases: Results from a Dutch prospective cohort study. *Scandinavian Journal of Public Health* 46(3): 400 – 408. **For full-text article, click [here](#).**



Other selected publications

Sewdas R, De Wind A, Van der Zwaan LGL, Van der Borg WE, Steenbeek R, Van der Beek AJ, Boot CRL. Why older workers work beyond the retirement age: a qualitative study. BMC Public Health 2017; 17:672 [LINK](#)

Bouwhuis S, Geuskens GA, Boot CRL, Bongers PM, van der Beek AJ. Predictors of transitions from single to multiple job holding: Results of a longitudinal study among employees aged 45-64 in the Netherlands. Am J Ind Med 2017;60(8):696-710. [LINK](#)

De Wind A, Boot CRL, Sewdas R, Scharn M, van den Heuvel SG, van der Beek AJ. Do Work Characteristics Predict Health Deterioration Among Employees with Chronic Diseases? J Occup Rehabil 2017 Jun 29. doi: 10.1007/s10926-017-9716-z. [\[Epub ahead of print\]](#)

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](#)

Havermans BM, Boot CRL, Hoekstra T, Houtman ILD, Brouwers EPM, Anema JR, van der Beek AJ. The association between exposure to psychosocial work factors and mental health in older employees, a 3-year follow-up study. Int Arch Occup Environ Health 2017 [\[Epub ahead of print\]](#)

Oakman J, de Wind A, van den Heuvel SG, van der Beek AJ. Work characteristics predict the development of multi-site musculoskeletal pain. Int Arch Occup Environ Health. 2017 May 9. doi: 10.1007/s00420-017-1228-9. [LINK](#)

Scharn M, van der Beek AJ, Huisman MA, de Wind A, Lindeboom M, Elbers CT, Geuskens GA, Boot CR. Predicting working beyond retirement in the Netherlands: an interdisciplinary approach involving occupation epidemiology and economics. Scand J Work Environ Health 2017;43(4):326-336. [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](#)

Full list of publications: [LINK](#)