



Individual and work-related predictors of dynamic retirement and active ageing – Findings from the three-year postdoctoral project

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Thank you to collaborators

- Prof. Taina Rantanen, University of Jyväskylä, PhD Mikaela von Bonsdorff, PhD Katja Kokko, PhD Jenni Kulmala, PhD Timo Törmäkangas & Others at GRERC
- Prof. Mo Wang, University of Florida
- Prof. Sinikka Vanhala, Aalto University School of Business
- PhD Jorma Seitsamo FIOH, Prof. Juhani Ilmarinen
- Prof. Johan Eriksson, University of Helsinki
- PhD Le Zhou, University of Minnesota
- Distinguished Prof. Paul Spector, University of South Florida

Aim of the project

- To study how perceptions of work strain, work ability, and work history in midlife correlate with health, ability to perform daily tasks, and well-being in old age
- To study the influences of childhood and mid-adulthood personality characteristics on retirement-related intentions in midlife



Some activities during the Project

- Postdoctoral research project, 1.6.2012-31.8.2015, Maternity leave 1.8.2011-31.5.2012 and 1.7.-31.7.2012
- *Key Publications, accepted for publication/published:* Scientific publications **11**, includes **9** publications in scientific journal with a peer-review process
- Adjunct Professor (Dosentti) 7.7.2015 University of Tampere, School of Management (Human resource management)
- *Mobility:* Aalto University School of Business 29.6.2012-31.7.2013; Folkhälsan 1.6.2015-; University of Florida, 2012, 2013, 2014 three/five-week research visits



RESEARCH ARTICLE

Early Life Origins of All-Cause and Cause-Specific Disability Pension: Findings from the Helsinki Birth Cohort Study

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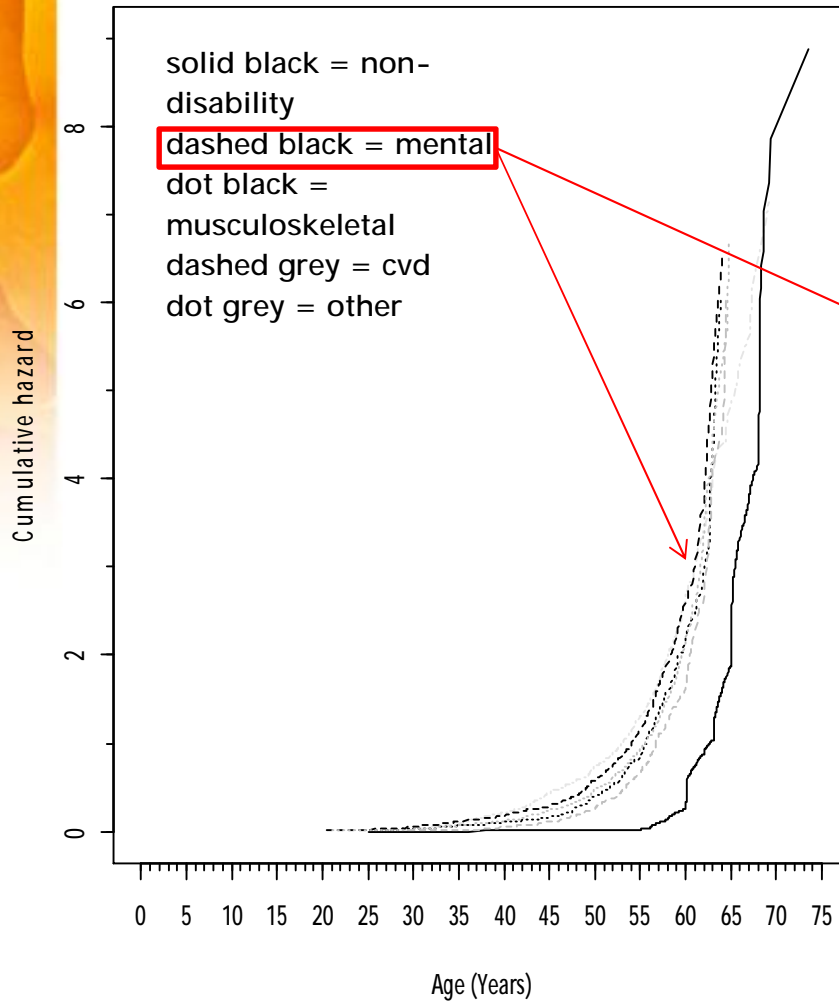


The aim was to:

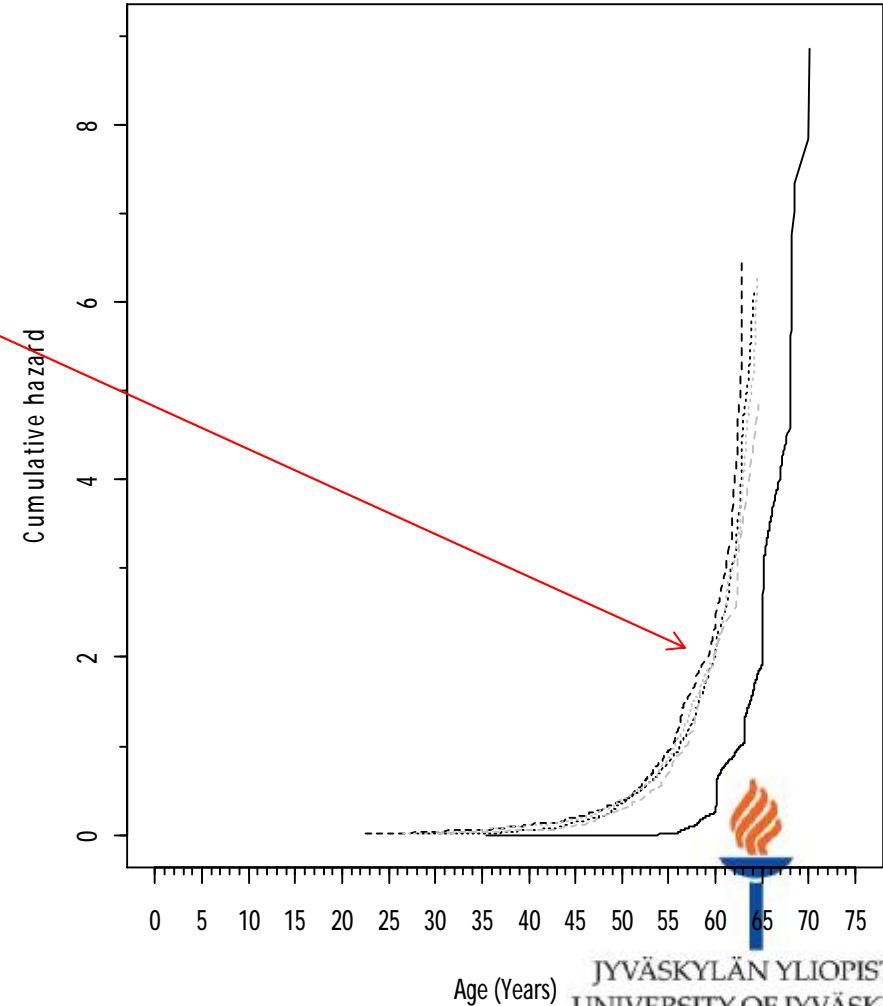
- I. investigate if birth weight was associated with transitioning into all-cause and cause-specific disability pension during the adult work career
- II. whether childhood and adulthood socioeconomic status explained the potential association

Nelson-Aalen cumulative hazards of retirement in groups according to non-DP and DP due to main diagnose groups

Men



Women



Hazards for disability vs. non-disability pension in adulthood according to birth weight

	Men			Women		
	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)
Birth weight, z-score	0.93 (0.88-0.98)	0.91 (0.86-0.97)	0.94 (0.88-0.99)	1.04 (0.97-1.11)	1.03 (0.97-1.10)	1.05 (0.98-1.12)
Birth order						
Firstborn		1.00	1.00		1.00	1.00
Second or higher		1.19 (1.06-1.33)	1.08 (0.96-1.21)		1.10 (0.96-1.25)	1.03 (0.91-1.18)
Father's occupational status						
Upper middle		1.00	1.00		1.00	1.00
Lower middle		1.24 (1.02-1.50)	1.00 (0.83-1.21)		1.17 (0.94-1.46)	1.00 (0.80-1.25)
Manual worker		1.71 (1.45-2.01)	1.09 (0.92-1.29)		1.52 (1.25-1.84)	1.08 (0.89-1.32)
Educational attainment						
Upper tertiary			1.00			1.00
Lower tertiary			1.57 (1.19-2.09)			1.40 (0.98-2.01)
Upper secondary			1.83 (1.37-2.45)			1.75 (1.22-2.51)
Basic or less			2.16 (1.62-2.87)			1.88 (1.32-2.68)
Adult occupational status						
Upper middle			1.00			1.00
Lower middle			1.62 (1.37-1.91)			1.61 (1.37-1.89)
Self-employed			2.06 (1.64-2.60)			1.37 (1.20-2.52)
Manual worker			2.89 (2.45-3.42)			3.18 (2.52-4.00)

Model 1 crude, Model 2 adjusted for birth order and father's occupational status, Model 3 adjusted for Model 2 + educational attainment and adult occupational status

Hazards for DP for men due to mental disorders, musculoskeletal disorders and cardiovascular disease according to birth weight

	DP due to mental disorder vs. non-DP		DP due to musculoskeletal disorder vs. non-DP		DP due to CVD vs. non-DP	
	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 1 HR (95% CI)	Model 2 HR (95% CI)
Men						
Birth weight, z-score	0.88 (0.80-0.98)	0.90 (0.81-0.99)	1.01 (0.89-1.15)	1.02 (0.89-1.17)	0.90 (0.79-1.02)	0.88 (0.78-1.02)
Birth order						
Firstborn		1.00		1.00		1.00
Second or higher		0.94 (0.76-1.16)		1.13 (0.86-1.47)		1.25 (0.96-1.64)
Father's occupational status						
Upper middle		1.00		1.00		1.00
Lower middle		0.82 (0.59-1.14)		1.76 (1.00-3.11)		1.22 (0.77-1.95)
Manual worker		0.88 (0.66-1.17)		1.94 (1.15-3.27)		1.33 (0.87-2.02)
Educational attainment						
Upper tertiary		1.00		1.00		1.00
Lower tertiary		1.57 (1.19-2.09)		2.96 (1.02-8.59)		2.74 (1.33-5.65)
Upper secondary		1.83 (1.37-2.45)		5.29 (1.85-15.18)		2.29 (1.08-4.89)
Basic or less		2.16 (1.62-2.87)		4.91 (1.72-14.04)		3.72 (1.79-7.75)
Adult occupational status						
Upper middle		1.00		1.00		1.00
Lower middle		1.27 (0.82-1.95)		1.64 (1.08-2.48)		1.45 (1.01-2.08)
Self-employed		1.22 (0.76-1.94)		3.25 (1.97-5.37)		1.93 (1.14-3.25)
Manual worker		1.49 (0.95-2.35)		3.97 (2.67-5.91)		2.16 (1.47-3.18)

Model 1 crude, Model 2 adjusted for birth order and father's occupational status, Model 3 adjusted for Model 2 + educational attainment and adult occupational status.

Type of retirement as a determinant of pre- and post-retirement hospital in-patient care use: a prospective study

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Purpose of the Study:

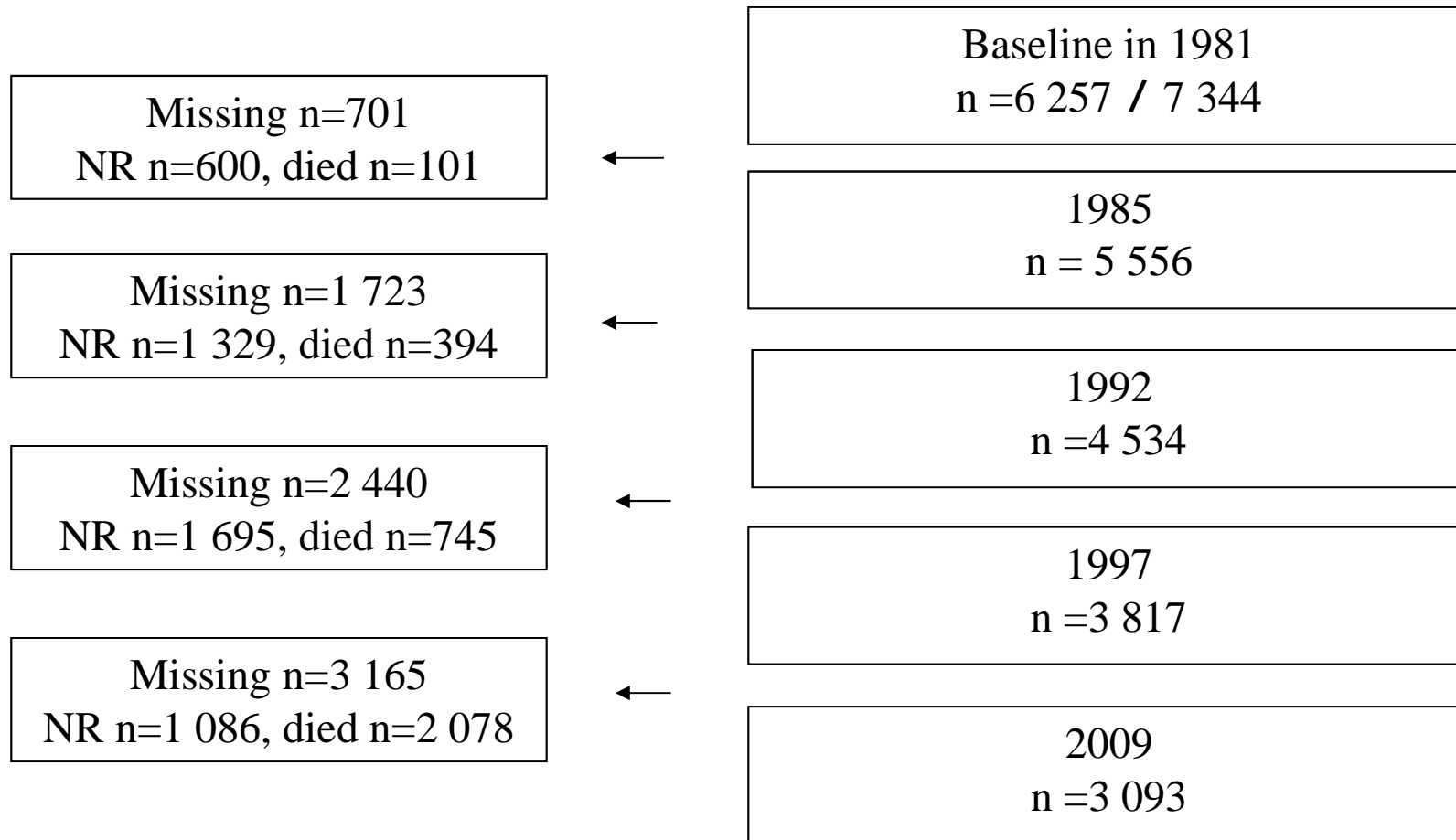
To examine prospectively the use of all-cause hospital in-patient care among public sector employees by using a 3-year pre- and post-retirement a study window



JYVÄSKYLÄN YLIOPISTO
UNIVERSITY OF JYVÄSKYLÄ



Finnish Longitudinal Study on Municipal Employees (FLAME)



^ Municipal employees born between 1923-1937

^ 2 863 (45.8%) participated in all waves



Baseline characteristics

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	All participants n=5269	Non-disability retirement n=3411	Disability retirement, All causes n=1858	Disability retirement, Musculo-skeletal n=908	Disability retirement, Cardiovascular n=353	Disability retirement, Mental disorder n=258	Disability retirement Others n=339
Age at baseline, years (mean, SD)	50.1 (3.4)	50.6 (3.5)	49.2 (3.1)	49.1 (3.0)	49.4 (3.1)	48.6 (2.9)	49.2 (3.2)
Age at retirement (mean, SD)	58.3 (3.5)	58.7 (3.7)	57.5 (2.8)	57.6 (2.8)	57.3 (2.8)	57.8 (2.8)	57.5 (2.9)
Men	44	40	51	45	69	34	53
Occupational class							
Upper white-collars	21	23	17	10	19	37	24
Lower white-collars	34	38	27	28	21	35	23
Blue-collars	45	39	56	62	60	28	53
Musculoskeletal disease	37	31	46	54	38	36	39
Cardiovascular disease	20	17	25	23	42	21	18
Metabolic disease	6	5	7	7	8	9	7
Mental disorder	2	1	3	2	1	9	2
Cancer	4	4	5	6	3	7	7
Never smoked	57	61	51	53	43	60	46
Alcohol consumption ≥ 1 per week	10	8	13	13	15	11	11
Vigorous physical activity ≥ 1 per week	49	52	43	42	44	41	46
No hospital care during the study window ^a	9.0	10.4	6.5	6.0	6.9	6.5	7.7

Pre- and post-retirement hospital care

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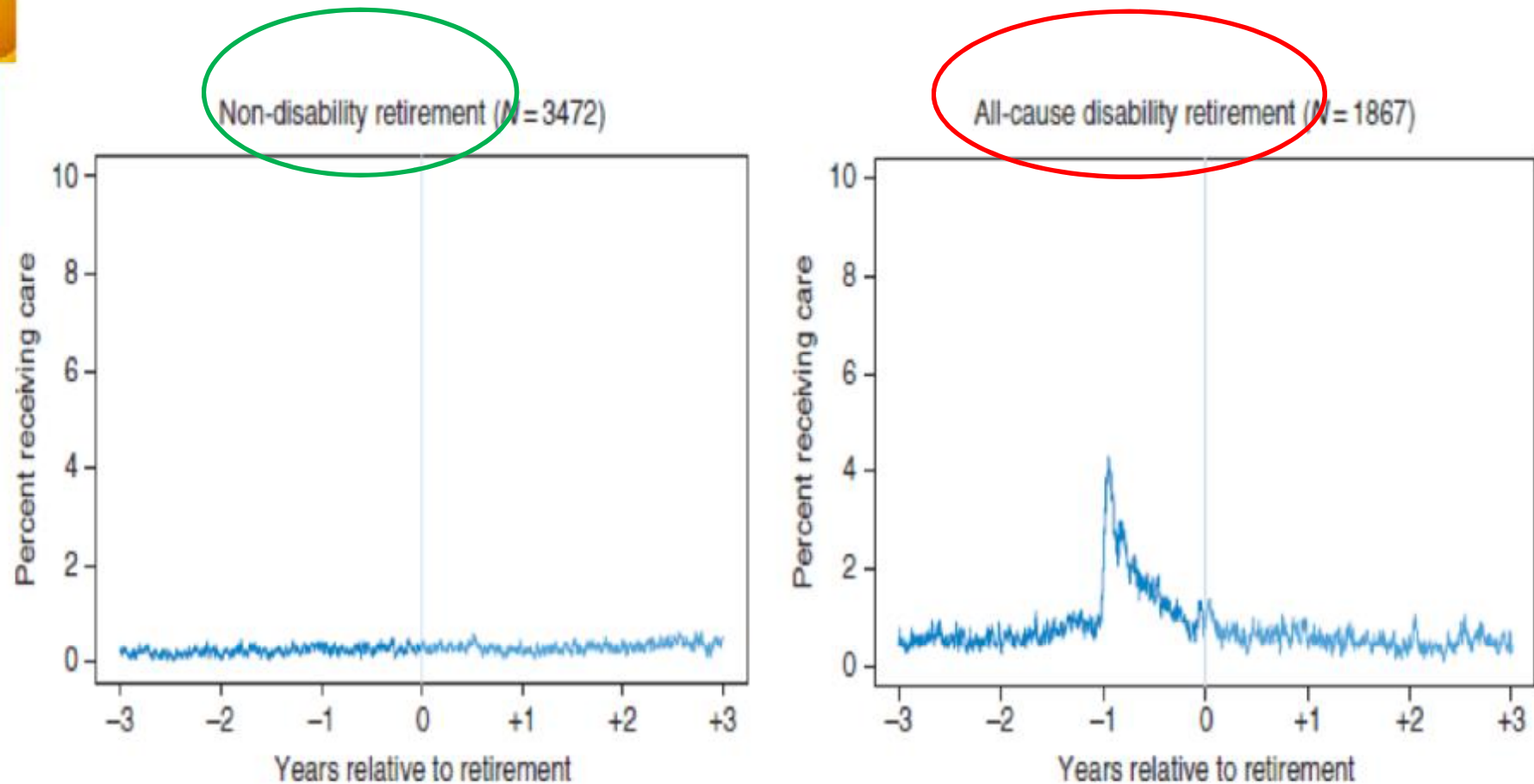


Fig. 1 Pre- and post-retirement use of hospital care by type of retirement (non-disability and all-cause disability retirement). Participants were followed up for 3 years before and after retirement; vertical line indicates retirement.



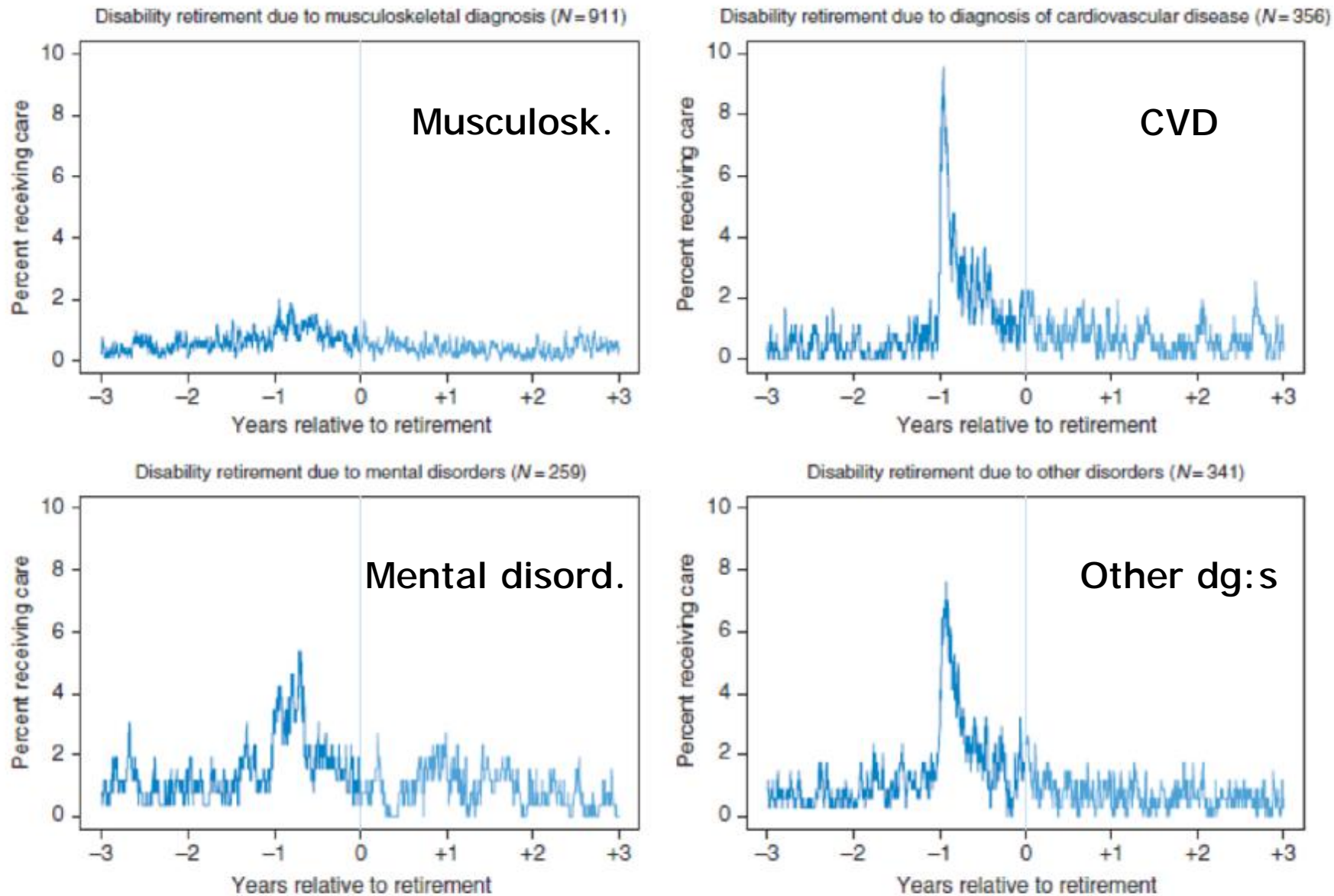


Fig. 2 Pre- and post-retirement use of hospital care by type of disability retirement (musculoskeletal, cardiovascular, mental disorders and all other diseases). Participants were followed up for 3 years before and after retirement; vertical line indicates retirement.



Discussion & Future Plans

- The multilevel model on age, use of SOC behaviors at work, HIWPs, work ability, and company performance:
 - Taking a multilevel perspective on the use of SOC behaviors and work ability can shed light on the mechanisms underlying the influence of aging in the workplace
 - New theoretical knowledge on age and HIWPs in terms of work ability, answer to the call to integrate HRM and aging literature
 - Higher company work ability was positively associated with company performance
- Higher birth weight associated with a decreased risk of transitioning into disability pension among men
 - The association particularly strong for men who retired due to mental disorders (depressive episodes, neurotic disorders, mood disorders and schizophrenic disorders)
 - Birth weight, an indicator of the prenatal environment of the fetus, independently linked to DP risk



Discussion & Future Plans

- An increase in pre-retirement hospital care in major diagnosis-specific disability retirement groups was followed by various patterns of decrease in the need of care indicated a beneficial health effect of retirement:
 - Monitor especially those women who retire due to mental disorders
 - Prolonging careers could be achieved without increasing the need for hospital in-patient care (note. The need for disability pension)
- Future plans = Continue studying aging in working life, apply for domestic & international funding
- Develop further own research group
- Maintain/develop international collaboration
- Keep doing the work I enjoy J



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