

## **Work in Life**

#### Work and health from a life course perspective

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Aletta Research Meet-up, Groningen, November 6, 2018





# Take home message

- Appreciate key life course concepts
- Recognize the complexity of the work & health relationship
- Consider integrating life course concepts in - work and health - research and practice







# My life



Groningen, The Netherlands





# My working life



University Medical Center Groningen
Health Sciences, Community & Occupational Medicine





### Interplay of Work and Health

- fundamental to life,
- interdependent and
- shaped by the context





### Work, health and society

Being sufficiently healthy is a condition for work, and maximizing healthy life as a proportion of total life is therefore a desirable goal for individuals and society.

Dame Carol Black, 2008, 2012





# Challenges to building a society of good work and good health

- 1. To minimize ill-health and its effects on work functioning.
- 2. To ensure good physical and pyschosocial work environments.



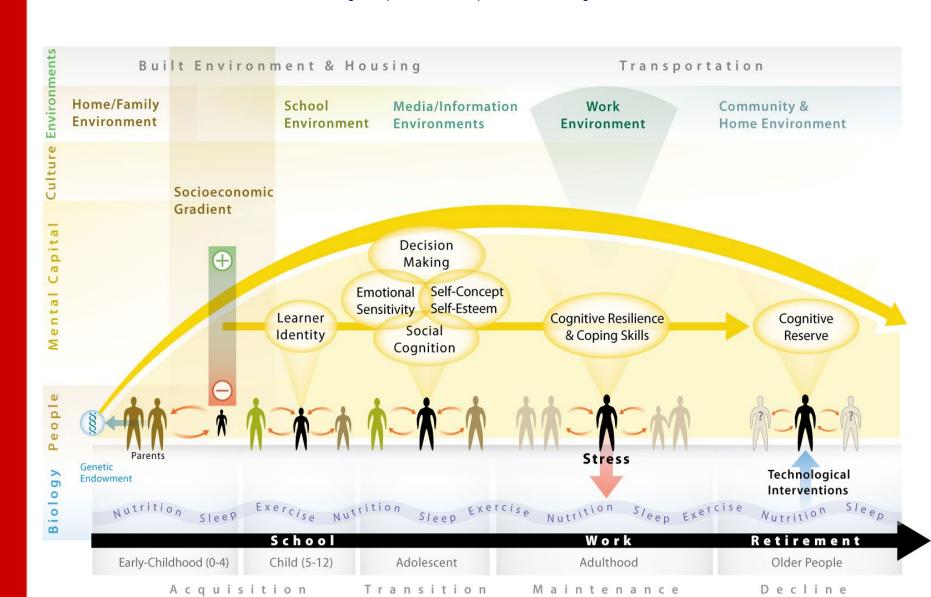
All solutions should work for workers / families at the top and bottom of society and throughout the **life course**.





#### **Expected life course**

Foresight Report: Mental Capital and Wellbeing 2008



# Help workers to participate in work and to extend working life in good health

- (Chronic) health problems
- Changing work and labor markets
- Socio-economic gradient











# Think differently! Research challenges

- Current work and health research is fragmented.
- Focus on jobs, exposures, work organization or employment contracts. (Berkman et al., 2014)
- Traditional occupational or (psycho-)social epidemiology research is no longer sufficient. (Amick, et al., 2016)



# Why a life course lens for looking at work and health?







# Why a life course lens for looking at work and health?

Childhood

**Working life** 

Retirement





# Why a life course lens for looking at work and health?

A person's health does not start when work begins!

Where a person works depends on where the person grew up, who the person grew up with and the education.



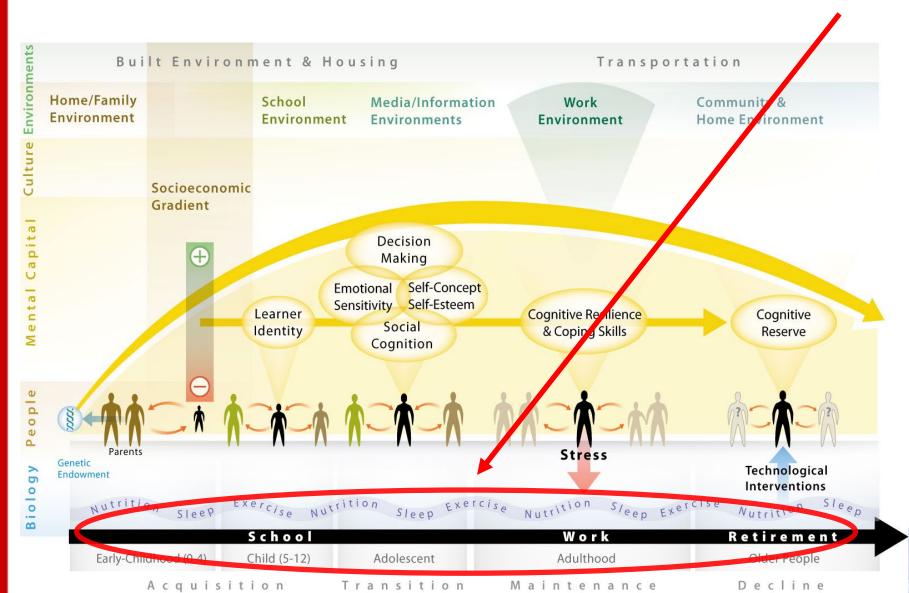
A more integrated approach is needed that considers the working life course.



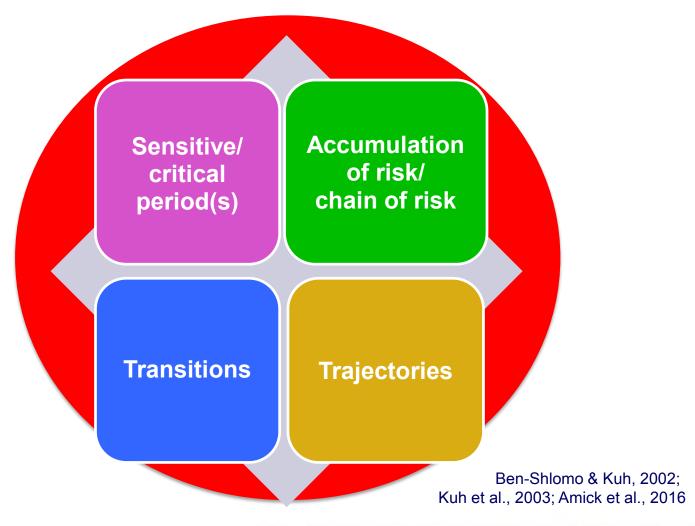


## Working life course and health

Foresight Report: Mental Capital and Wellbeing 2008



### Key life course concepts







### Sensitive/critical periods

MODEL 3

**HEALTH STATUS** TRANSITION<sub>1</sub> Depression

LIFE COURSE TRANSITION<sub>1</sub> High school

drop out

LABOUR MARKET EXPERIENCE<sub>1</sub> Unemployed, looking for work

LABOUR MARKET TRANSITION<sub>1</sub> Becoming

employed

LABOUR MARKET EXPERIENCE<sub>2</sub> Working, poor job, poor pay

**HEALTH STATUS** TRANSITION<sub>2</sub> Work disability

LABOUR MARKET EXPERIENCE<sub>3</sub> No longer looking

TRANSITION<sub>2</sub> Disability retirement for work at early age

LABOUR MARKET

**HEALTH STATUS** TRANSITION<sub>3</sub> Poor health in

retirement

Sensitive/critical periods in early life and during working life, e.g. youth unemployment or sickness absence in mid-life.





#### **Accumulation of risk**

MODEL 3

HEALTH STATUS TRANSITION<sub>1</sub> Depression TRANSITION<sub>1</sub>
High school

drop out

LABO EXPE

LABOUR MARKET EXPERIENCE<sub>1</sub> Unemployed, looking for work LABOUR MARKET TRANSITION<sub>1</sub> Becoming

employed

LABOUR MARKET EXPERIENCE<sub>2</sub> Working, poor job, poor pay HEALTH STATUS
TRANSITION<sub>2</sub>
Work disability

LABOUR MARKET EXPERIENCE<sub>3</sub> No longer looking

for work

TRANSITION<sub>2</sub>
Disability retirement at early age

LABOUR MARKET

HEALTH STATUS
TRANSITION<sub>3</sub>
Poor health in
retirement

Accumulation of health risks or advantages over time, e.g. working year after year in poor working conditions, but working is also good for health.





#### **Work-life transitions**

MODEL 3

HEALTH STATUS
TRANSITION<sub>1</sub>
Depression

LIFE COURSE TRANSITION<sub>1</sub> High school

drop out

LABOUR MARKET EXPERIENCE<sub>1</sub> Unemployed, looking for work LABOUR MARKET TRANSITION<sub>1</sub> Becoming employed LABOUR MARKET EXPERIENCE<sub>2</sub> Working, poor

Working, poor job, poor pay

HEALTH STATUS TRANSITION<sub>2</sub>

EXPERIENCE<sub>3</sub>
ty No longer looking
for work

LABOUR MARKET

LABOUR MARKET TRANSITION<sub>2</sub>

Disability retirement at early age

HEALTH STATUS
TRANSITION<sub>3</sub>
Poor health in

retirement

The nature and timing of work-life transitions are constructed by the social context; e.g. school to work, changing careers, getting unemployed.





## Working life trajectory

MODEL 3

**HEALTH STATUS** TRANSITION<sub>1</sub> Depression

LIFE COURSE TRANSITION<sub>1</sub> High school

drop out

LABOUR MARKET EXPERIENCE<sub>1</sub> Unemployed,

looking for work

LABOUR MARKET TRANSITION<sub>1</sub> Becoming

employed

LABOUR MARKET EXPERIENCE<sub>2</sub> Working, poor job, poor pay

**HEALTH STATUS** TRANSITION<sub>2</sub> Work disability

LABOUR MARKET EXPERIENCE<sub>3</sub>

No longer looking for work

LABOUR MARKET TRANSITION<sub>2</sub>

Disability retirement at early age retirement

**HEALTH STATUS** TRANSITION<sub>3</sub> Poor health in

A sequence of work-life transitions and work experiences together creates the working life trajectory.





#### Social context



SOCIAL CONTEXT1 Limited job training opportunities

LABOUR MARKET CONTEXT<sub>1</sub> No good

jobs available programs

WORKPLACE SOCIAL CONTEXT2 CONTEXT<sub>1</sub> Limited job retraining or No good disability prospects for persons management with disabilities

SOCIAL CONTEXT3 Limited disability pensions, job retraining, or job prospects for persons with disabilities

Political changes and the global economy change the social context and that affects labor markets; e.g. dynamic, multiple transitions.





## An illustrative working life course

MODEL 4

**HEALTH STATUS** TRANSITION<sub>1</sub> Depression

LIFE COURSE TRANSITION<sub>1</sub> High school drop out

LABOUR MARKET EXPERIENCE<sub>1</sub> Unemployed,

looking for work

LABOUR MARKET TRANSITION<sub>1</sub> Becoming

employed

LABOUR MARKET EXPERIENCE<sub>2</sub> Working, poor

TRANSITION<sub>2</sub> Work disability job, poor pay

LABOUR MARKET EXPERIENCE<sub>3</sub>

No longer looking for work

LABOUR MARKET TRANSITION<sub>2</sub>

Disability retirement at early age

**HEALTH STATUS** TRANSITION<sub>3</sub>

Poor health in retirement

SOCIAL CONTEXT1 Limited job training opportunities

LABOUR MARKET CONTEXT<sub>1</sub>

No good jobs available WORKPLACE CONTEXT<sub>1</sub>

No good disability management programs

SOCIAL CONTEXT2

**HEALTH STATUS** 

Limited job retraining or prospects for persons with disabilities

SOCIAL CONTEXT3

Limited disability pensions, job retraining, or job prospects for persons with disabilities









#### Discussion paper

Scand J Work Environ Health 2016;42(4):346-353

doi:10.5271/sjweh.3567

## Labor markets and health: an integrated life course perspective

by Amick BC, McLeod CB, Bültmann U

Integrating a life course perspective into work and health research leads to a new approach to conceptualizing research questions that: (1) account for prior non-work and health states and significant life transitions; (2) offer a new work and health nomenclature reflecting transitions, experiences, trajectories, and context; and, (3) place a primary research focus on labor markets and health trajectories.



#### **Transitions**

- Significant changes in physiological, psychological, social or material states. (Kuh et al, 2003; McLeod et al., 2012)
- Nature, timing, and sequence important.
- Health status, life course and labour market transitions potential for short-and long-term health and labour market outcomes.





#### Table 3. Overview of labor market and health transitions

#### Into/out of the labor market

- School to work and/or work to school
- Work into and/or out of retirement
- · Work into and/or out of family care
- New labor market entrance (eg, new immigrants)

#### Within the labor market

- Employment to unemployment and /or out of unemployment to employment
- Work to maternity/paternity leave and/or maternity/paternity leave to work
- Connectedness to the labor market, related to the nature of the contract (working arrangement and time): self-employed to not selfemployed and/or vice versa (vv), part-time to full-time and/or vv) salary to hourly/piece and/or vv, permanent to temporary and/or vv, unionized employer to a non-unionized employer and/or vv
- One job to another job
- One firm to another firm

#### Health-related transitions that affect the work status

- · Remain working (accommodated or not)
- Not working, but able to return to work (short-term disability or sickness absence)
- Not working and not able to return to work (eventual exit from the labor market)

Amick et al., 2016



# Transitions: not simple, heterogeneous

- Multiple transitions between different labour market experiences and health states. (Sabbath et al., 2015; Flint et al., 2013)
- Working life course: framed by school-to-work transition at front end and work-to-retirement transition at back end. (Shim et al., 2013; Veldman et al., 2015)
- Complex in conceptualization and measurement.







Contents lists available at ScienceDirect

#### Social Science & Medicine





## Functional health decline before and after retirement: A longitudinal analysis of the Health and Retirement Study



Sander K.R. van Zon <sup>a, \*</sup>, Ute Bültmann <sup>a</sup>, Sijmen A. Reijneveld <sup>a</sup>, Carlos F. Mendes de Leon <sup>b</sup>





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b Department of Epidemiology, University of Michigan School of Public Health, 1415 Washington Heights, Ann Arbor, MI 48109, USA

#### **Work-to-retirement transition**

- 1) To examine the pattern of pre- and post-retirement changes in functional health.
- 2) To examine the degree to which socioeconomic position modifies pre- and post-retirement changes in functional health.



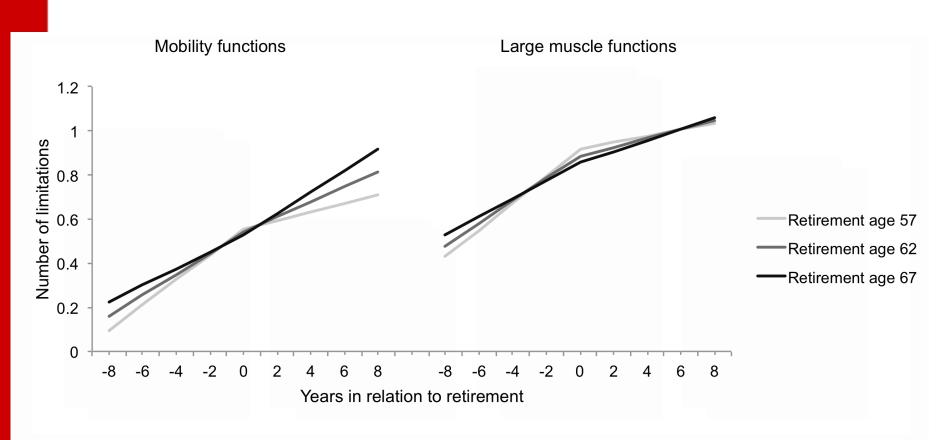
### Health and Retirement Study, US

- Longitudinal HRS follow-up data from 1992 to 2012 to model 8 years before and 8 years after retirement transition.
- Trajectories of limitations in mobility and large muscle functions.
- Relations of socio-economic position with time before and after retirement were examined.





### **Limitation trajectories**



Trajectories of limitations in mobility and large muscle functions for white married males with retirement ages 57, 62, and 67





#### **Conclusions**

- Average levels of limitations increased significantly in the years prior to retirement.
- Increase slowed down after retirement, most prominently for limitations in large muscle functions.



### Implications for policy and practice

- Prevention of functional decline in older working adults may be essential in achieving longer and healthier working lives.
- Strategies have to give special consideration to lower SEP adults.



#### **School-to-work transition**

Mental health, educational attainment and employment:

A life course perspective



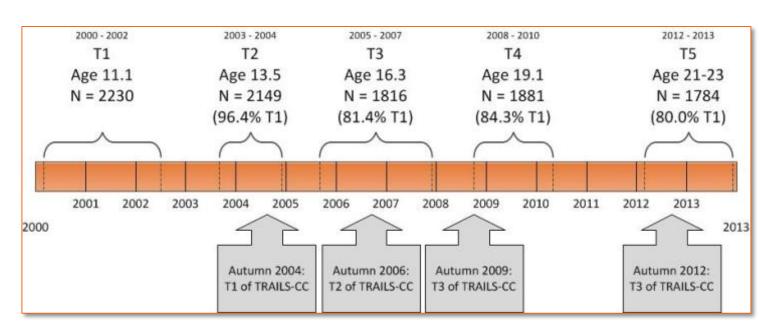




# Sampling frame: +/Q1/5



#### TRacking Adolescents' Individual Lives Survey



2016 **T6** Age 25-27 N = 1617(72.5% T1)

Huisman et al., 2008





#### Research report



Mental health trajectories from childhood to young adulthood affect the educational and employment status of young adults: results from the TRAILS study

Karin Veldman, <sup>1</sup> Sijmen A Reijneveld, <sup>1</sup> Josue Almansa Ortiz, <sup>1</sup> Frank C Verhulst, <sup>2</sup> Ute Bültmann <sup>1</sup>

Veldman K, et al. J Epidemiol Community Health 2015;69:588–593. doi:10.1136/jech-2014-204421





### Mental health trajectories & status

- 1. To identify trajectories of mental health problems from childhood to young adulthood.
- To investigate the relation between these trajectories and the educational or employment status of young adults.



### **Educational or employment status**

- 1. At school or at work with Basic Educational Level (BEL)
- 2. At work without BEL or in NEET

(Neither in Education, Employment or Training)



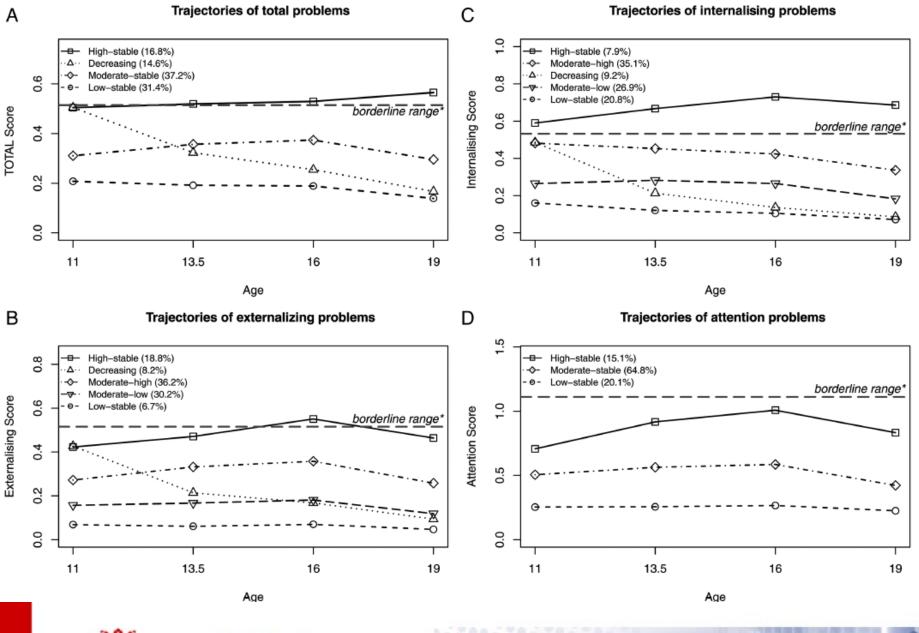


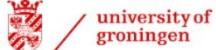






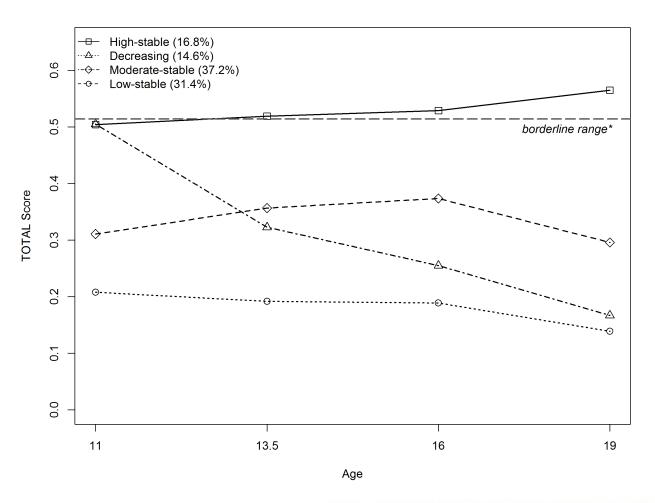








#### **Trajectories: Total problems**







# Mental health trajectories & status

- Young adults with **high-stable** trajectories of total problems were more likely to work without BEL or be in NEET at age 19, than to be at school or at work with BEL (28% vs. 16%, p=0.01).
- Idem for externalizing problems (29% vs. 18%, p=0.03).
- For internalizing and attention problems, no statistically significant differences were found.



## **Conclusions and implications**

- Early detection and treatment is needed to ensure smooth transition into the labor market
- Adolescence is a key developmental (critical)
   period, that should be linked to later life labor market
   outcomes.
- Raise awareness about history of mental health and later life work outcomes, e.g., in school, at work, among (occupational) health care professionals)





#### Original article

Scand J Work Environ Health 2017;43(4):316-325

doi:10.5271/sjweh.3651

A life course perspective on mental health problems, employment, and work outcomes

by Veldman K, Reijneveld SA, Verhulst FC, Ortiz JA, Bültmann U

We identified trajectories of mental health problems from childhood to young adulthood and linked these trajectories to employment conditions and psychosocial work characteristics. To our best knowledge, this is the first study which linked early mental health problems to psychosocial work characteristics. Early detection and treatment of mental problems is needed to ensure a smooth transition into the labor market.





# Today's youth is tomorrow's workforce

**Ute Bültmann** 



#### Research questions

- What are the main working life trajectories of young adults?
- To what extent are they affected by
  - mental health and family life over the life course?
  - the socio-political **context**?



#### Theoretical innovation

#### Life course mechanisms:

- 1. Critical / sensitive periods
- 2. Timing and accumulation of (dis-) advantage
- 3. Chain of risk



## **Empirical innovation**

#### New quantitative and qualitative data:

- 1. Quantitative data
  - TRAILS (N=2230), TRAILS CC (N=543), Vestliv (N=3054)
  - Lifelines (N=165.200)

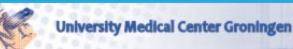
#### 2. Qualitative data

Young adults, key stakeholders from policy & practice, NL/DK









## **Impact**

Theory & evidence-based insight in:

- 1. At-risk individuals
- 2. Early detection
- 3. Targets for interventions

#### Science informing policy and practice!











# Integrating a life course perspective

into work and health research leads to a **new approach** conceptualizing research questions that:

- account for prior non-work and health states and significant life transitions;
- 2) offer a new work and health *nomenclature* reflecting transitions, trajectories, and context and
- 3) place a focus on *life course analyses* (e.g. latent class growth analysis, multi state analysis, sequence analysis)





## "Healthy working lives"



"If we succeed in adopting a **life course perspective** and translating our findings into relevant policy and practice measures, we together – researchers, health care professionals, employers and policy makers – can **make a difference**."

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