



**THE WORK  
FOUNDATION**  
PART OF LANCASTER UNIVERSITY

Return to work, employment and workplace  
adaptation related to cancer – epidemiological  
evidence

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## Cancer survivors in work life

- As a serious illness, cancer is a resource loss in itself, often followed by threats to other resources (job, social relationships, income etc.)
- However, it is something you can recover from



- Increasing number of cancer survivors are able to return to work

*I would gladly have given my job to someone younger. It scares me to return to work, because I've been absent for over a year. What frightens me most is how my colleagues are going to take my return. I guess they never expected me to return to work. Too much has happened over the past year. Mentally I haven't been able to keep track of things. First I prepared myself for dying – now I have to reorientate myself into work life...(53-year old breast cancer survivor)*

# Studies of work and cancer

- The interest on research of work and cancer increased in 2000's, and several studies have been published in this field
- The studies have focused on examining the impact of cancer diagnosis on employment and defining the factors that are associated with cancer survivors' employment, return to work and work ability (i.e. disability)

# Employment and cancer

**Employment rate** of cancer cases (N=12 542) and the same number of age and gender matched controls (1)

- Before cancer: 78% in both groups
- 2-3 years after cancer: 64% cancer survivors vs. 73% controls

**Risk of unemployment** (N=20,954 cancer survivors and 160,480 healthy controls) (2)

- Cancer survivors were 1.4 times more likely to be unemployed than healthy controls (33.8% vs. 15.2%; RR 1.37, 95% CI 1.20-1.67).

1) Taskila-Åbrandt et al. (2004) Eur J Cancer 40  
2) De Boer, Taskila et al. (2009) JAMA 7:301

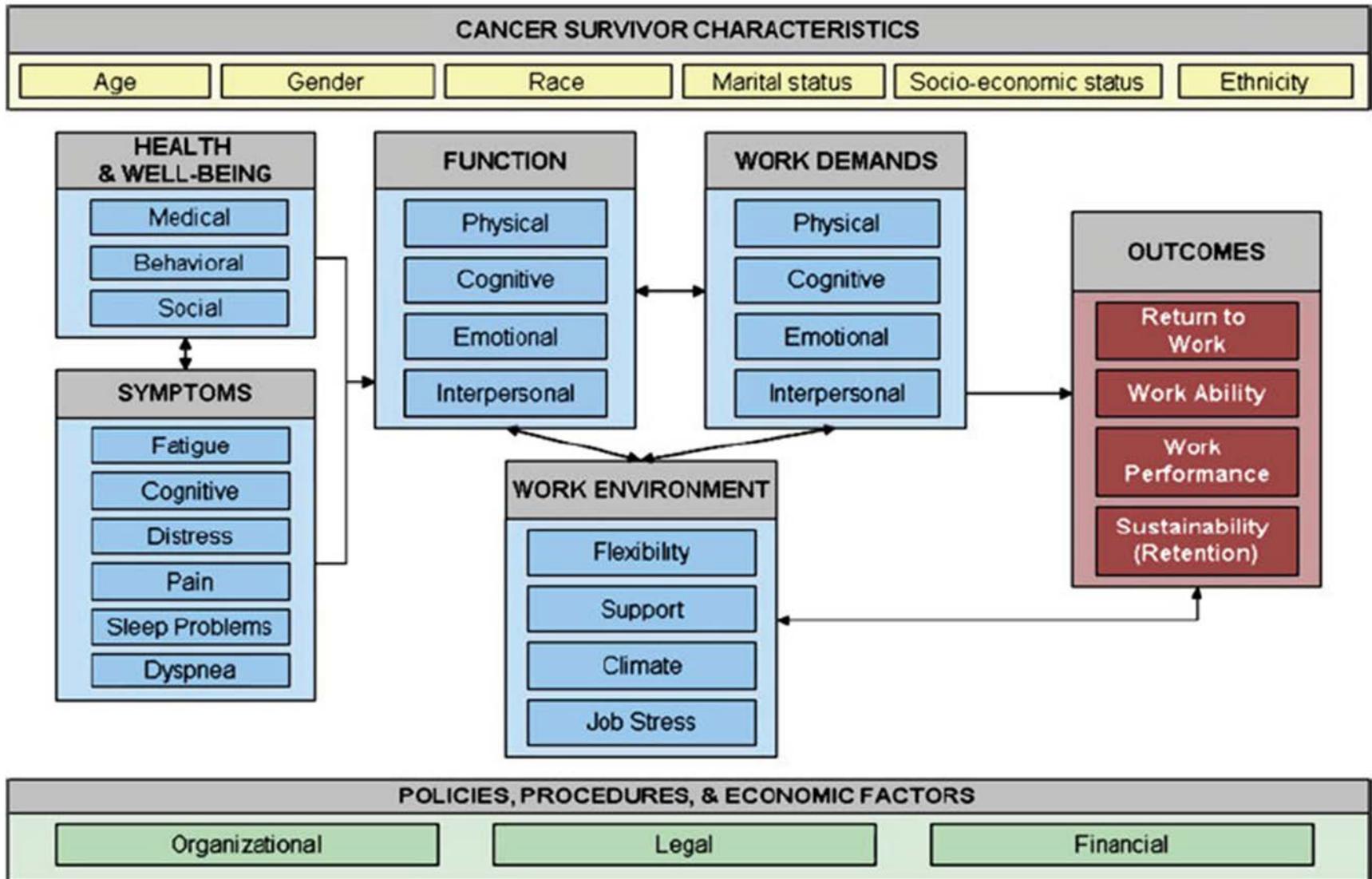
# Decreased work ability

People with cancer are at higher risk of early departure from work life:

- Higher risk of retirement due to cancer compared with controls (RR 1.27, CI 95% 1.24 – 1.30) (1)
- Higher risk for unemployment due to disability for cancer patients compared with controls (RR 2.84, CI 95% 1.91-4.20) (2)

1) Taskila-Abbrandt et al. (2005) *Psycho-Oncology*, 14

2) De Boer, Taskila et al. (2009) *JAMA* 7:301



Feuerstein et al. J Can Surv 2010

# Impaired work ability due to cancer

Taskila et al. 2007 Eur J Can 43:914-20

|  | MEN                                      |  | WOMEN                                     |  |
|--|--|--|---|--|
| Odds ratios (95% CI)                       | Physical work ability (N 31, 20% of all) | Mental work ability (N 35, 23% of all) | Physical work ability (N 121, 28% of all) | Mental work ability (N 79, 18% of all) |
| <b>Treatment</b>                           |  |  |   |  |
| No Chemotherapy                            | 1.00                                     | -                                      | 1.00                                      | -                                      |
| Chemotherapy                               | 2.79<br>(1.24-6.32)                      | -                                      | 2.16<br>(1.45-3.21)                       | -                                      |
| <b>Other diseases or injuries</b>          |  |  |   |  |
| None                                       | 1.00                                     | 1.00                                   | 1.00                                      | 1.00                                   |
| One  | 0.87<br>(0.35-2.16)                      | 1.85<br>(0.84-4.09)                    | 2.02<br>(1.33-3.08)                       | 1.38<br>(0.88-2.18)                    |
| Two or more                                | 5.08<br>(1.45-17.3)                      | 8.34<br>(2.41-28.89)                   | 3.82<br>(2.11-6.92)                       | 2.86<br>(1.54-5.30)                    |
| <b>Commitment to the work organisation</b> | 0.79<br>(0.69-0.91)                      | -                                      | 0.90<br>(0.83-0.97)                       | 0.87<br>(0.79-0.96)                    |
| <b>Social support from co-workers</b>      | -  | -                                      | 0.83<br>(0.73-0.94)                       | 0.84<br>(0.73-0.96)                    |

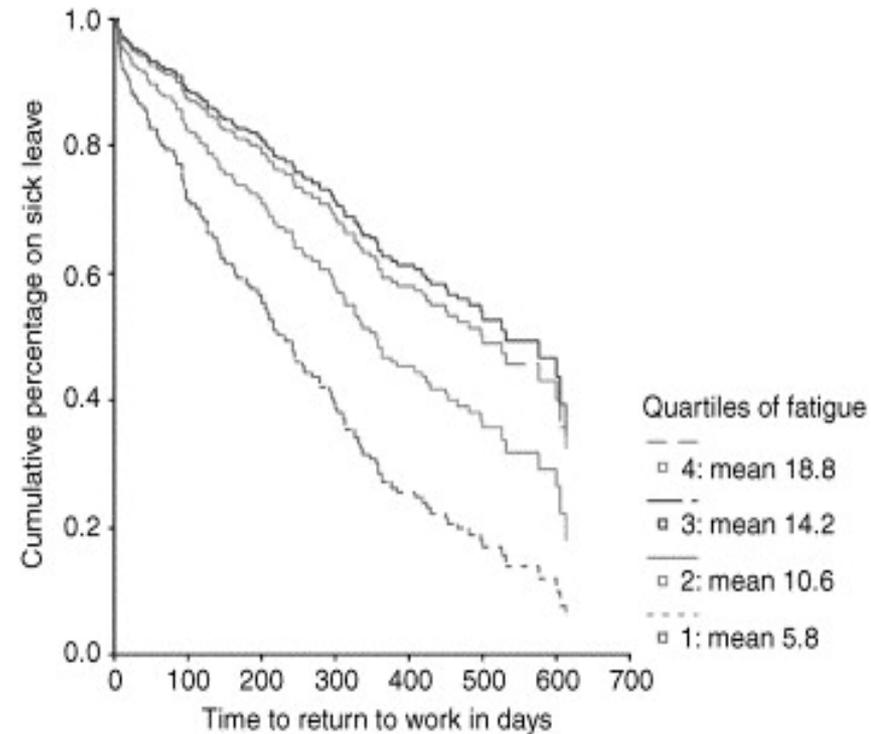
# Fatigue as a predictor of RTW

Spelten et al. 2003:

- Fatigue related to number of days of sick leave (HR = 0.71, 95% CI: 0.59-0.86)
- Fatigue correlates strongly with other symptoms that predict time to RTW

Taskila et al. 2010:

- Fatigue levels related to workplace accommodations at 6 months: -2.41 CI 95% (p<0.03) and 18 months: -4.56 CI 95% (p<0.0001)
- Depression score was higher in those without workplace accommodations



# Summary of the epidemiological evidence

## **Cancer has impact on employment**

- People with cancer have higher risk of unemployment mainly due to disability

## **Factors most commonly found to be associated with/predicted return to work:**

- Severity of the illness (i.e. presence of symptoms)
- Sociodemographic characteristics (occupation, marital status)
- Workplace (work environment, type of work, support)

Majority of the studies have been cross-sectional in their nature identifying factors that are associated with employment and barriers of return to work.

# Future research

- Recurrent sick-leave
- First weeks back at work
- Workplace accommodations



- Longitudinal design of studies taking account not only internal but also external factors affecting successful return to work and work retention

# Return-to-work strategies for workers affected by cancer - policies and interventions

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# Return-to-work of cancer survivors

- Complex phenomenon - influenced by various factors and involves various stakeholders with various motives
- Embedded in institutional and cultural context
- Interaction -> person and (work) environment
- The longer the duration of sick-leave the more difficult it is to get back to work



# Disease-related interventions

- Improve cancer treatment
- Cancer rehabilitation
  - Reduce long-term side-effects of cancer treatment and/or co-morbidity such as fatigue or concentration problems
  - Improve physical fitness/ recovery of cancer treatment
- Cancer rehabilitation guideline<sup>1</sup>
  - Address return-to-work as part of cancer care
  - Physician's advice on return-to-work correlates with return-to-work

1. In the Netherlands, the Cancer rehabilitation guideline states that work should be addressed as part of cancer care and will be implemented in the near future.



# Work-related interventions

- Job content (physical and mental demands)
  - (Temporary) workplace accommodations
- Improve support/attitude of work environment and reduce stigma
  - Facilitate gradual return to work
    - Workplace accommodations such as
      - work hours
      - work tasks
      - Responsibilities
      - Workplace
  - Guideline for occupational physicians on cancer and work<sup>1</sup>
  - Informational leaflet for supervisors on cancer and work<sup>2</sup>

1. NVAB, 2009, Blauwdruk kanker en werk. In Dutch.

2. NFK, 2011. in Dutch.





# What works best? (1)

- Multidisciplinary intervention
  - Multidisciplinary nature of return-to-work
- Intervention should be tailor-made
  - Depending on individual situation and work-related problems
- Early intervention
  - Longer the duration of sick-leave the more difficult to return-to-work
- Gradual return-to-work
  - Combining part time sick-leave with part time return-to-work
- Make return to work of cancer survivors a subject of discussion at the workplace
  - Reduce stigma on return to work of cancer survivors
- Improve attitude and support of supervisor, occupational physician



# What works best? (2)

## Policy level – cancer and return to work

- Less scientific evidence regarding if and how a change in policy enhanced the return-to-work of cancer survivors

## Policy depends on socio-political system of a country:

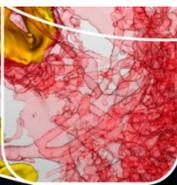
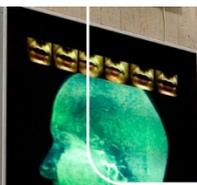
- Making it possible to combine part time work and part time sick leave (*Belgium, Finland*)
- Making it possible to have a flexible sick-leave arrangement (*Norway*)
- Raise awareness among stakeholders - the needs of cancer patients returning to work (*Belgium, the Netherlands, Norway*)



# What works best? (3)

## Policy level

- Tips and information on how to keep in touch with employees during sick leave, how to make cancer a subject of discussion (*Norway, the Netherlands*)
- Make return-to-work policy different for cancer survivors (*Denmark*)
- Address return to work as part of cancer care (*various EU countries*)
- Include work in rehabilitation guideline (*various EU countries*)
- Change attitude of health care professionals towards addressing work as part of cancer care (*various EU countries*)



# Future challenges

- Screening for high risk of long-term sick leave
  - Stepped-care
- Focus on other work outcomes such as
  - Quality of work life
  - Work productivity
- Study return-to-work interventions/policy in high quality studies
- Adapt return-to-work interventions to various social security systems and/or culture
- Who should pay for the intervention?
  - Health insurance companies bear most costs while the benefits might be for the employer/employee



# Thank you for your attention

## Questions?

Many thanks:

The European Cancer Leagues (ECL)

Coronel Institute of Occupational Health/Academic Medical Centre

The Finnish Work Environment Fund

Finnish Institute of Occupational Health (FIOH)

Finnish Cancer Patients Association



# References

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- [www.kankerenwerk.nl](http://www.kankerenwerk.nl) (in Dutch)
- [www.europeancancerleagues.org](http://www.europeancancerleagues.org)

