Background
In Public Health effects of work on health are usually either measured using multi-item scales or using constructs for an occupations socio-economic status. There’s lack of scales that allow clues on working conditions when there is only information on occupation. We constructed job exposure matrices based on ISCO-88 and ISCO-08 for overall physical and psychosocial job exposures, carcinogenic agents as well as physical exhaustive work and validated it using the European Working Conditions Survey 2010.

Method
The Index itself is based on a German sample of men and women aged 15+ years (n = 20,036). 39 workplace characteristics were assigned to 3 multi-item (overall, physical, psychosocial strain) and 2 single-item scales (carcinogenic agents, physical exhaustive work). Scales were constructed using multi-level linear regression models using ISCO digits as levels (controls: sex, age, job experience and working hours). Validation is done by EWCS (n = 43,816, 34 countries) for self-perceived health risks, hazards at work, self-rated health status and a health symptoms score.

Results
It was possible to assign values to 99% of the EWCS sample. The mean job index was associated with prevalence of all health outcomes on the country level (r = .28 to .51). In country specific regression models (controls: age, sex, working hours and experience in current job), all three indices were significant predictors for all health outcomes in 33 of the 34 countries analyzed. The association with was strongest for overall physical and overall health risk score.

Discussion
The generated Job Indices are validated proxy variables for domain specific health risks at work in Europe. They can be used as explanatory and control variables as well as to describe study samples. Using the ISCO-08 and ISCO-88 classification schemes, the indices may be used with survey data as well as with process produced data from health insurances or pension funds.

Key messages
- The generated Job Indices are validated proxy variables for domain specific health risks at work in Europe
- Using the ISCO-08 and ISCO-88 classification schemes, the indices may be used with survey data as well as with process produced data from health insurances or pension funds.