# OP4

# SUSTAINABLE EMPLOYABILITY INDEX MODEL TO PREDICT ASSURED ABILITY TO WORK AMONG AGING WORKERS

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# **Background:**

Sustainable working life is an important concern among working-age people in order to keep the labor market functioning.

# Aim:

We developed a sustainable employability (SE) index model to predict assured ability to work among older postal employees.

## Methods:

A questionnaire survey of postal employees aged  $\geq$  50 years was conducted in 2016 and a follow-up survey was conducted in 2018 (n = 1102). The data were divided into training and validation sets with a balance of age and gender. The outcome was defined as assured ability to work in two years vs. no or impaired work ability. Multivariable log-binomial regression was used to calculate the SE index based on nine indicators. The predicted probability of the assured ability to work in two years was calculated.

## Results:

The probability of assured ability to work increased linearly with increasing quintiles of the SE index. The highest quintiles of the SE index showed the highest observed and expected assured ability to work in two years. The predictive ability: area under the curve (AUC) for training data: 0.79 (95% CI 0.75-0.83) and AUC for validation data: 0.76 (95% CI 0.73-0.80). In the scoring tool, the self-rated health, work ability, job satisfaction, and perceived employability had the highest contribution to the index.

## Conclusion:

The SE index was able to distinguish well between employees with assured ability and poor or impaired ability to work in two years. The developed scoring method can be used to calculate the potentiality of future employability among late mid-life employees.