# STRAIN Study\* - assessing and reducing workrelated stress among health professionals in Switzerland – a study protocol

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\*This project is part of a cooperation between the Swiss Universities in Health, to establish a competence centre for workforce shortage among health professionals, and is carried out in cooperation with the Haute école spécialisée de Suisse occidentale (HES-SO) and Scuola universitaria professionale della Svizzera italiana (SUPSI).

## BACKGROUND

- The shortage of health professionals is becoming an increasingly relevant issue (WHO, 2016).
- In Switzerland, the health care system struggles with recruiting qualified healthcare professionals. The present healthcare workforce requirements will not ensure adequate staffing for the future (Hahn, Richter, Beck, & Thilo, 2013; Jaccard Ruedin, Weaver, Roth, & Widmer, 2010)
- Work-related stress in health professions plays an important role. Recent study results indicate that high workload, work-family conflict, long working hours, shiftwork as well as feelings of exhaustion, can lead to an earlier career exit among health professionals (Addor et al., 2016; Kraft, L., & van der Heiden, 2016).



Findings indicate that health professionals who experience work-related stress are more likely to suffer from:

- high blood pressure,
- affective disorders,
- disturbed metabolism or musculoskeletal disorders.
- higher burden of depression,
- coronary artery disease,
- congestive heart failure,
- hypertension or back and spine disorders

(Taylor & Bithoney, 2012; Eurofound, 2005; Li et al., 2011).



For health organisations, work-related stress may have the following effects:

- increased accidents at work,
- Increased costs of occupational illnesses,
- decreased productivity,
- higher turnover-rate,
- decreased quality of care.

(Leka, Griffiths, & Cox, 2003; Montgomery, Todorova, Baban, & Panagopoulou, 2013; Suadicani, Olesen, Bonde, & Gyntelberg, 2014; Taylor & Bithoney, 2012; Eurofound, 2005)

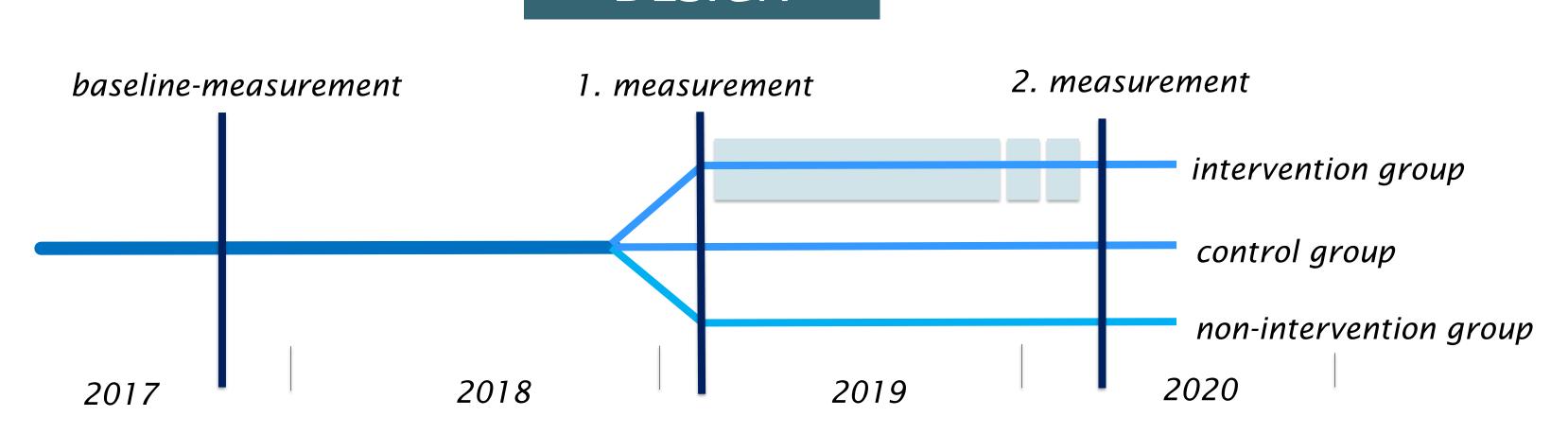
#### AIM

The aim of this study is to: (1) identify work-related risks, stress reactions and long-term consequences among nursing staff, physicians, medical-technical and medical-therapeutical professions in Swiss hospitals (general hospitals, rehabilitation hospitals, psychiatric wards), and to (2) reduce those factors with an educational intervention for supervisors.

## **METHOD**

A longitudinal cluster randomized controlled trial is being conducted from 2017 until 2020 in in all language regions of Switzerland in the following health care settings: acute-care, rehabilitation, psychiatry, long-term care and home care (see figure: DESIGN). Data will be collected three times, using a self-report questionnaire for the employees, and a questionnaire to assess institutional key figures. Further, data from focus group interviews and a systematic literature research will serve in developing the study intervention (training and coaching for supervisors in middle and upper management levels).

#### DESIGN





Randomisation procedure: After the baselinemeasurement, the data is evaluated for each institution and those with the highest optimization potential are randomly divided into an intervention and a control group. In the groups without an intervention, organizations with a low level of work-related stress among employees are classified.

#### INTERVENTION

The intervention development is based on the results of the STRAIN baselinemeasurement, qualitative results from focus group interviews and study results from a systematic literature research. The intervention development process follows the steps of the Intervention-Mapping method of Bartholomew et al. (2016). The intervention includes training and coaching for supervisors, including the topic — how to deal with work-related stress. Furthermore, national recommendations to reduce work-related stress in the health care system will be developed according to the results of the STRAIN study.

national results from the STRAIN baselinemeasurement for the extent of work-related stress among health professionals

results from focus group interviews (28 planned focus group interviews) including a collection of possible interventions to reduce workrelated stress among affected health professionals

**Intervention**: *education* programme (3-days) and further coachings (2x) for supervisors of affected health professionals, development of national recommendations

results from a literature search focus on intervention studies including significant interventions for reduction of workrelated stress

## EXPECTED RESULTS

#### Expected results:

- to identify work-related stress factors, stress reactions and related long-term consequences for Swiss healthcare professionals
- to develop and test an intervention evidence-based programme for healthcare professionals
- national recommendations for each participating health profession and setting will be available in three national languages (GE, FR, IT).

# CONCLUSION

- In order to address the shortage of healthcare professionals, it is important to not only collect frequencies about work-related stress, but to also develop an effective intervention to reduce work-related stress.
- ✓ The results will be transferred directly into education and practice. and will change staff and managers perspectives on work-related stress. Consequently, this project will make an important contribution to counter the shortage of health care professionals.





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