



**Karolinska
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Institutionen för folkhälsovetenskap

Work Absenteeism and Productivity Losses Associated with Overweight

AKADEMISK AVHANDLING

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ABSTRACT

Background Overweight has increased dramatically in the Western world during the past decades. The condition is associated with impaired health through, e.g., cardiovascular disease, musculo-skeletal disorders, type II diabetes, sleep apnoea and cancer. Apart from causing individual suffering, overweight incurs costs to society.

Aim The aim of the present thesis was to investigate the association between overweight and work absenteeism, as well as the related productivity losses to society.

Methods Data on individual characteristics, e.g. body mass index (BMI; kg/m²), smoking, socio-economic index and muscular strength, as well as data on sick-leave, disability pension and mortality, were obtained for 45 920 Swedish men performing mandatory military service conscription tests in 1969/70 (mean age 18.7±0.5y) through linkage of national registers. Overweight was classified into pre-obesity (BMI 25.0-29.9) and obesity (BMI≥30.0), while normal weight was defined as BMI 18.5-24.9.

Based on 38y of follow-up from time of conscription tests, overweight-related risks compared to normal weight for sick-leave, disability pension and premature death were estimated by the use of multivariable regression models. The related productivity losses were estimated using the human capital approach.

Results Compared to normal weight, overweight was found to be associated with increased risk of work absenteeism, especially for longer episodes (including death). During a lifetime, an obese individual was estimated to incur productivity losses to a value of €95 000 (CI_{95%} €89 000 - €103 000) to society, nearly twice as much as his normal weight counterpart. Approximately 8% of future productivity losses among young men today could be avoided, had no one been overweight.

Conclusion Overweight-related costs of work absenteeism appear to be significant and are important to consider in decision making. Effective overweight prevention has the potential to substantially reduce productivity losses to society.

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